University News

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C T Bhunia

Technical Education: Some Thoughts

Nalin K Shastree

Nation's Knowledge Designer: The University Grants Commission

Nataraj B Vibhuti

Improving Teaching Effectiveness in Library and Information Science Education

National Case Writing Workshop
Prof G Mehta—President AIU 2003
Rajib Goyal Prizes for Young Scientists
Refresher Course in Pharmaceutical Sciences
Symposium on Qualitative Research in Social Science

Association of Indian Universities

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IMPORTANT DATES

Commencement of sale of application forms : 03.02.2003

Last Date for:

(a) Request by Post : 28.02.2003
(b) Sale at Bank Counters : 03.03.2003
(c) Sale at GATE Office (IIT Kharagpur) : 10.03.2003
(d) Receiving Completed Application Form : 10.03.2003

DATE OF ADMISSION TEST : 13.04.2003

Application Form duly filled-in should reach The Chairman, GATE, Indian Institute of Technology, Kharagpur 721 302 by 10.03.2003

Chairman, Gate & PG Admission Committee

Ridge

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Editor :
Dr M Goswamy

Technical Education: Some Thoughts

C T Bhunia

(Bengal Institute of Technology and Management, G-4, Garden Green Apartments, 184 Bansdroni Place, Kolkata-700070, E-mail: cnaa@cal3.vsnl.net.in)

The generation of improved Technical Manpower has been accepted as a sound strategy for survival of the poor nations in the present age of global competition and open economy. All business and industry houses, world over, have recognized human resources as the most vital resources for competitive advantages in the present age of knowledge society and information technology. Today, training centres in industries have hence become profit centres rather than cost centres. Production of technical manpower is done at institutes of higher education, namely, engineering and medical colleges and universities. More and more higher technical educational institutes are springing up in recent times. In poor countries, higher education is rated costly although in comparison to the advanced countries, the absolute cost of education including higher education is low. The UNESCO courier reports: "On average, an investment by a poor country of $651 in higher education requires twice as big a sacrifice as an investment of $6,520 by a rich country. In other words, the poorer a country, the higher the relative cost per student and the greater the national budgetary effort". Due to the relative high cost of higher education, the poor countries face hardship to afford the cost of higher education. Besides, poor countries need to invest more in social infrastructure, which includes elementary education, and basic health that were hitherto not so well attended to. More investment in the building of social infrastructure in poor countries is usually being done at the cost of state funding in higher education. It is absolutely needed that poor countries have to invest more in social sector, but the logic to do so only at the expense of higher education is not clear. But it is the hard fact and the trend is that the poor countries are cutting higher education budget drastically. India's public expenditure on tertiary education, expressed as a percentage of total public expenditure on education was 15.5% in 1985 and it has been lowered down to 13.6% in 1995. The problem has further compounded due to population growth whose effect is the increase in gross enrolment ratio. This ratio expressed as a percentage of the population in tertiary education in India has jumped from 4.9% in 1970 to 6.5% in 1995. Again it, does not mean that the generation of technical manpower is significant in India or in poor countries. In 1990, the total number of scientists and engineers per million population was 2807, 1665, 158, 3317 and 109 respectively in the developed countries, the Europe, the developing countries, the USA and India. This reflects that poor countries including India need to generate more technical manpower by opening more and more technical colleges and universities. Therefore the only option left to poor countries to do so is to invite private participation. This is a hard choice between the public universities and the private universities where "Universities would compete with each other like businessmen".

Reduced Budget in Higher Educations

In India, cut in the higher education budget started since 1992, when Dr. Manomohan Singh as the finance minister proposed to bring liberalisation, privatisation and globalisation in India. Dr. Singh in his budget speech announced that the universities and the institutes had to generate self-revenue. He also announced income-tax relief over donations made to academic institutes. The trend is continuing. A few days back both the Prime Minister, and the Human Resources Development Minister announced the reduction in higher education budget and called for more private participation in higher education and the establishment of private university. There may be so many reasons, so many arguments for budget cut of higher education, and there may be so many replacements for state funding institutes; but the consequences of budget cut may be alarming.

Truly speaking, the share of total education in total allocation and that of only higher education in allocation of education are both on a decline trend since the Fourth to the Eighth Plan periods. The percentage of share of education in the total allocation was 4.90%, 3.27%, 2.70% and 3.70% respectively, in the Fourth Plan, the Fifth Plan, the Sixth Plan and the Seventh Plan, whereas the percentage of share of higher education in the allocation of education for over the above plan periods was respectively 25%, 22%, 18% and 14% only. The budget reduction is not a new phenomenon and cannot be linked with the present Government only. The reduced budget allocation is causing public expenditure on education to trail over times and is seriously affecting the infrastructural development and facilities causing quality of education to degrade. The problem is compounded further due to gradual increase in enrolment ratio and the overall population growth. The enrolment in tertiary education in 1970, 1985 and in 1995 was 4.9%, 6.0% and 6.5%. Total number of graduate engineers produced in India was 41464, 44141 and 60749 respectively in 1990, 1992 and 1996. One evident trend is the decline of foreign students' enrolment in India. Total number of foreign students coming to India was 12665 and 9027 in 1992 and 1996, respectively.

It is now established that in the age of competitive advantages, the improved human resources generation is the only sound strategy for the poor nations. In this context and in the context of the present education scenario of India how far the budget cut of higher education is justified needs to be debated.

But, at the moment India is going for higher education by more and more private initiatives. Over a long period, India has witnessed private education up to higher secondary school level at very large scale. The private schools have repeatedly defeated the state or the state-funding schools in all aspects. In West Bengal, a few names of private schools are worth mentioning, eg, Narendrapur R.K. Mission School, South Point, and St. Xaviers among others. In the era of higher education, particularly in engineering branch, a large numbers of private colleges have been running in India. The result is not discouraging. At least, a few institutes like Vellore Engineering College of Tamil Nadu, Manipul Institute of Higher Education of Karnataka, Birla Institute of Technology of Mesra and Birla Institute of Technology and Science of Pilani are worth mentioning. Therefore, it would be wrong not to welcome private initiatives in higher education. Privatisation of higher technical education is an unavoidable trend in the current context. "They are also a ray of light for hundreds of high school graduates who cannot get in to state-run universities".

At present, the only deviation is that the scale of private institute for higher education is increasing alarmingly. This shall cause dramatic increase in availability of engineering graduates in the near future. In West Bengal alone, the number of seats in graduate course of one department, namely computer science and engineering, has shot up to around 820 in 1999 from mere 120 in 1995, about a seven fold increase over a four years gap. It is often said that the product of quality and quantity remains constant. Of course, the formula applies to a particular system or the unit as a whole. India as a whole, if seen, the mushroom growth of private institutes may cause an alarm on the quality of generation of technical manpower. This is the most important parameter, that the Government has to see and monitor while allowing private institutes to operate on a large scale. India is neither the USA nor the UK, that we shall be so sure about qualify production in private institutes.

SWOT Analysis of Private Institutes

Strength

- Higher education is not at the cost of state funding.
- Initiatives are outside the purview of Government bureaucratic rules and procedures.
- Education is at corporate-like environments rather than at conventional educational environments.

Weakness

- Laboratories and Physical Infrastructures may not be at par with those of Government / Government - aided institutes.
- Profit only motives may cause immature death of private institutes.
- Profit motives may enforce the private institutes to admit rich but weak students at the cost of meritorious, but poor students.

Opportunities

- Society gets more and more technical manpower.
- Private initiatives may result in profit making industry and institute for human resources generation.
- Competitiveness in education may enhance the productivity and the quality of education. More technical manpower may lead to growth of entrepreneurs in society.

Threats

- Profit motives may lead to recruit less qualified and incompetent faculty members causing quality of education to fall.
- More technical manpower may cause more unemployment, which may cause the death of private institutes.
- In private colleges, priorities of authorities toward the development of secure financial and business system may cause the quality of education to decline.

A Practical Approach to instil Quality in Technical Education

'Survival of the fittest' is the slogan of the present age of global competition and liberalised open economy. Four *mantras* for being and keeping the fittest are:

- Improved Human Resources to lead
- Global Information on Desk to guide
- Innovate to flourish
- Quality to nourish

Assume a nation as a car. To drive this car the first two *mantras* are, respectively, the driver and the fuel. Last two *mantras* are the directions for and of driving.

Today, technical persons with high and improved quality are, therefore, of paramount importance for any nation. Prof. A. Bhattacharjee, formerly Professor at Jadavpur University and Director IIT, Kanpur, reportedly made the observation that "IITs produce export quality engineers". But how? Keeping aside the fact that most brilliant students take admission in IITs, the reason of producing export quality manpower by IITs is the three Bs of IITs:

- Better faculty members
- Better physical infrastructure (laboratories teaching aids and libraries), and
- Better funding

Thus it is a mere logical extension that to instil quality in Technical Education the most practical approach shall be to go for these three Bs.

Better Faculty Members

Posting-Recruitment-Promotion

Prof. A Dasgupta, a former Professor of Management at the University of Delhi, in a Management Conference opined that the first step for improved human resources in any organisation shall be 'to go for recruiting people who are resources'. For recruitment of faculty members, we have to follow this bench marking theory of Prof Dasgupta.' Teachers are not available, so go for recruiting anyone and everyone available,' which is often the present practice, must be stopped. Recruitment by the present mode of selection, which often becomes election, must also be stopped. Recruitment by achievements shall have to be introduced. It is proposed that the recruitment and promotion and posting to the posts of Heads/Deans/ Directors may be done purely on the basis of points earned by the achievements. Grading of the Universities/Institutes and Journals, may be done by UGC/AICTE etc. If required, by special perks and special pay etc, the higher achievers shall have to be encouraged to join and continue as faculty members.

Assessment

The World Bank argued that "higher academic performance can be promoted by evaluating the quality of teaching and research". Teachers' assessment is essential. Assessment by feedback from students is not a sound strategy. There is a difference between "sound Teacher and popular Teacher". For proper assessment, the examination of question papers set by the course teachers is being proposed. The review of the question papers shall address: (i) whether the whole of the syllabus is covered, (ii) what is the level of teaching, and (iii) whether there is any originality in teaching. Based on these, grades shall be awarded to the teachers, which shall further be recorded in their ACR.

Duties and Discipline

To stop the deteriorating condition of the conduct, the discipline and the quality of the colleges and the universities, the University Grants Commission mooted the idea of introducing 'a code of ethics for teachers, a code of conduct for staff and a code of discipline for students'. Today we seriously need a code of not only ethics but also conduct and disciplines for the teachers. Today, in the educational institutes liberty is confused with license, thereby hardly any discipline and conduct are prevailing in the institutions. Vice Chancellors, Directors, Deans and Heads are often heckled and forced to resign or removed by the faculty members in the name of democratic rights. Even these are done often in collusion with the students and staff. These have been possible due to so called rotational Deanship/Headship and contract appointment of Directors/Vice Chancellors. If the rotational and contract appointments are so good, why there is no such scheme of rotational or contract appointment of the Chief Secretary/Cabinet Secretary etc? We need to seriously consider and rationalise the issue. It is strongly proposed that Heads/ Deans and Directors be appointed on permanent basis and on the basis of grade points earned. With these, it is expected that discipline shall be restored among the faculty members.

There remains a confusion regarding duties and responsibilities of the teachers. Whether it is RAT (Research, Administration and Teaching), TAR or ART, etc., it is proposed that time has now reached to clearly define the duties at different levels and strictly adhere to it. The duties and the responsibilities may be defined as below:

Lectures/Sr. Lecturers.......Teaching and Research and Laboratory set up

Asstt. Professors/Readers.......Teaching, Research and Departmental Administration

Professors/Sr. Professors.......Institute level and Departmental Administration, Research and Teaching.

Better Infrastructure and Funding

Better infrastructure needs better funding. Both the issues can be tackled by converting the conventional educational institutes each into an I-C-I (institute-cum-industry). State funding of higher education is becoming difficult day by day in poor countries like ours I-C-I can solve the funding problems. In I-C-I, there shall be two sections: Institute and Industry. Industry section will earn money for the I-C-I. What is wrong if faculty members, as they do consultancy work presently outside the institutes, can do the same in I-C-I? What is wrong if students do project work and laboratory work in the industry section of I-C-I in an environment of "learn while doing and by doing"? We badly need to change our educational structure from the copied system of western countries to our friendly system of I-C-I, which shall give a solid structure for quality education.

We have proposed PAD and I-C-I respectively for operational and structural changes to instil quality education.

Conclusion

IITs, ISI, IIMs and IISc, among others, produce export quality engineers due to the three Bs--Better faculty members, Better infrastructure and Better funding. Keeping these in mind, to instil quality education in private institutes, a few steps are required to be made mandatory for these institutes. First, the institutes have to follow a national level standard syllabus prepared by a statutory body like the All India Council of Technical Education (AICTE). Second, the institutes have to be accredited for their courses under the National Board of Accreditation. Third, the admission into the courses have to be made through respective state level joint entrance examination. Fourth, the faculty members of the institutes have to be paid the uniform pay scale and perks prescribed by AICTE from the given date of implementation. Fifth, the institutes have to invest the uniform minimum amount of money prescribed by AICTE for each Laboratory or Workshop for a fixed number of students supposed to do practice in the Laboratory Workshop. Sixth, the institutes have to recruit the minimum number of faculty members per discipline prescribed by AICTE. Seventh, the Director of the colleges / institutes shall have to be recruited through open advertisement, and the selection board for the Director shall include one representative each from respective state Government and AICTE. The initial period of privatizing higher technical education needs at least a seven point agenda for monitoring. Better and more technical manpower is what India needs to generate. ❑

Clarification

The address of G.B. Pant University of Agriculture and Technology (University News, Vol 40, No. 50, p. 13) is Pantnagar - 263 145, Distt. Udham Singh Nagar, Uttaranchal. Ranichauri is a Research Station of that university.

Nation's Knowledge Designer: The University Grants Commission

Nalin K Shastree
(Babasaheb Bhimrao Ambedkar University, Raebareli Road, Lucknow-226 025)

She was young, energetic and a talented teacher; flashing on the TV screen, expressing her views with full seriousness, confidence and concern regarding the policies and working of the country's apex organisation in the field of higher education: the University Grants Commission. She looked more concerned about the diminishing autonomy of universities in general and commented particularly on the restructuring/reshaping/redesigning of the syllabus. Her dissenting views are historically important—if we go down through the memory lane, some fifty years back (*i.e.* September, 1952) the same question of autonomy was raised by the noted academicians of those days like Prof. Hadi Hasan, Prof. A.C. Banerjee, Dr. V.S. Krishna, Dr. R.K. Shanmukham Chetty, Mrs. Hansa Mehta, Sir Navrajju Wadia, Sir Vithal N. Chandalvarkar, Dr. G.S. Mahajani, Dr. V.K.R.V. Rao, Sir A.L. Mudaliar and Sir Ramaswamy Mudaliyar. The vehement opposition was focused on three dimensions (Singh, 1994) which were as follows:

(i) It is for the universities themselves to regulate, maintain and coordinate their own academic standards.
(ii) For any outside agency to seek to undertake this job would amount to violating university autonomy.
(iii) If the standards were low, it was mainly for lack of funds. Once adequate funds were made available, there would be hardly any problem.

Sowing of New Ideas: Birth of the University Grants Commission

These academicians were discussing in the light of a draft bill 'The Universities (Regulation of Standards) Bill' which was aimed to regulate certain matters relating to coordination and determination of standards in universities, which in due course of time, led to the constitution of UGC, had the following main objectives:

- No university established after the commencement of this Act by or under a State Act shall be deemed to be a university unless the Central Government by notification makes a declaration to that effect.
- It is open to the Central Government to declare any institution for higher education other than a university to be a university.
- No institution other than a university would have the right to confer degrees.
- In order to carry out the work of coordination and determination of standards, a Central Council of University Education is to be established. At least one-third of the members of the Council would be Vice Chancellors.
- The Central Council can ask for information about any aspect of powers to direct the executive authority of any university to take such action as may be specified.
- In case any university fails to comply with the directions issued within a reasonable time, the Central Council would be authorized to advise the Central Government to de-recognise any degree conferred by such a university for the purpose of employment under the Central Government or for any other purpose.

The Governmental stand was reiterated by the then Hon. Minister of Education, Mr. Humayun Kabir (1952) that there was no attempt to encroach upon the autonomy of the universities. But at the same time it was emphasized that ensuring uniformity of certain standards was the need of the hour and organisations like the Inter University Board were requested to come forward with concrete suggestions. Although the Bill could not be passed, it was clarified that though the government was not interested to intervene directly, these programmes could be effectuated through an autonomous statutory body of professionals which could command the confidence of the universities. It was expressed that if such a central body were not to be established and universities were to be left to their own devices, the standards would continue to be uneven, indeed unsatisfactory, and the obligation cast upon the Centre to coordinate and determine standards would remain undischarged. This whole exercise was in tune with the recommendations of the University Education Commission (1948-50) under the Chairmanship of Dr. S. Radhakrishnan.

To establish a Central Council as envisaged in the Bill and to defend the Governmental stand against the charge of violating university autonomy was reflecting in the synthesis of two functions, viz. the functions of disbursing grants to universities and the functions of advising a course of action. Certain provisions of the 1951 Bill were discarded, and in finality the apex nodal agency in the field of Higher Education, the University Grants Commission, was set up by a resolution of the Government of India and it began functioning in December 1953 (Gupta, 1996) and formally in the year 1956 the UGC Act was passed. Dr. Shanti Swarup Bhatnagar was made the first Chairman and Prof. Samuel Mathai became the first Secretary, who served this organisation for almost a decade. Very distinguished academicians of the country, including Dr. A.L. Mudaliyar, Sir C.P. Ramaswamy Iyer, Dr. Zakir Hussain, Dr. John Mathai, Sir J.C. Ghosh and Prof. N.K. Siddhanta, contributed very significantly to the growth of this organisation in the passage of time.

UGC : The Teething Troubles

Since its inception, UGC had to address a number of difficulties. Samual Mathai (1981), the first Secretary of UGC felt that universities were becoming increasingly parochial and the staff being appointed there were not the best ones selected on a national basis. He further lamented that the growing indiscipline and the growth of trade union attitudes and methods had particularly nullified much of UGC's work and made the large sums of money invested in higher education in last twenty five years almost infructuous. Similar feelings were expressed by Sri K.L. Joshi (1980) who was the Secretary during 1963-67.

Maintenance of Standards: Conceptualizations Crystallized

It is apparent that there has been a continuous debate on the role and functions of UGC; arguments have been raised with force that the universities should be left free to decide their course of action, in the name of autonomy of the universities. Those who advocate this doctrine of autonomy probably forget that there is enough evidence in the Constituent Assembly debates and other papers connected with the framing of the constitution to show that the Centre visualised a positive and forward-looking role for itself in respect of higher education. Moreover, university autonomy cannot become real and effective unless adequate provision is made to meet the financial requirements of universities and colleges (E.C.R. 1964-66). Understanding the reality that the State Universities have to depend, for their maintenance grants and matching share, on the funds provided directly by the State governments and being an important source through which they can seek to curb the freedom of universities, the Education Commission (1964-66) has categorically recommended certain vital principles in order to infuse the dynamism in universities, as follows:

- State Governments should deal with the universities with understanding and imagination and place adequate financial resources at their disposal to enable them to carry out their obligations in an efficient way. It would be desirable if they seek the advice of UGC in the matter.
- While some safeguards are inevitable in financial matters and a reasonable economy in expenditure has to be ensured, it is essential to simplify rules and regulations and to operate them with speed and efficiency.

Three Essential Conditions

The following conditions had been devised by the Education Commission (1964-66) in order to develop a system of grant-in-aid which would promote a free flow of funds from one authority to another and at the same time ensure economy and efficiency and allow for the necessary degree of flexibility:

- It is necessary to ensure that the grant-giving authority does not exercise too much control and rigidity of approach, as a system of checks and balances—devised for other purposes is out of tune with the needs of a rapidly developing university administration and finance.
- The grant receiving bodies have to exercise the utmost vigilance and economy in utilising public funds, and;
- The system should be sufficiently elastic and should have some scope to the universities to experiment with new ideas and projects.

In the light of these principles the Education Commission, further, recommended for developing a system of disbursement of grants which takes the overall case of autonomy in the system, salient features of the same are as follows:

- Fixation of a block grant for a short period, say three to five years, on a rolling basis
- Provision for inevitable increases of expenditure during the period of grant
- Payment of special grants during this period for unforeseen developments, and

- a cushion would be left to the discretion of the universities so that they can have a fund on which they can freely operate. One way of providing a part of this cushion taken into consideration only the standard fees, the cushion consisting partly of the difference between the standard and the actual fees.

UGC's Operational Dynamics: Activity Panorama

The Government of India, through the Ministry of Human Resource Development, disburses both Plan as well as Non-plan grants to UGC which in accordance with its policies and programmes allocates funds to universities and colleges since it has no funds of its own (Goel, 2001). Some universities (*i.e.* all Central universities and some Deemed to be universities) get maintenance grants also in addition to development grants, whereas all State universities and majority of Deemed universities receive only development grants. Colleges under the University of Delhi also receive development as well as maintenance grants from UGC. The Government of India has tried its best to raise the allocations and increase the plan out-lay. The total plan out-lay for the VIth Plan was Rs. 621 crores (Rs. 233 crores for Plan and Rs. 388 crores for Non-plan) whereas that for the VIIth Plan was more than double and it became Rs. 1420 crores (Rs. 575 crores for Plan and Rs. 845 crores for Non-plan). Plan outlay figures and the distributional patterns for the VIIIth and IXth Plan have been separately presented through graphics (Fig. 1 and 2), which exhibit a substantial rising trend, in spite of which the promise for spending 6% of the GDP is still far from the reality.

Salient Features of Thrust Areas of VIIIth Plan

- Redesigning of courses, joint funding in the emerging area of Science & Technology.
- Quality improvement of Education including campus development.
- Autonomous and Academic Staff Colleges.
- National Educational Testing (NET) and Accreditation of Universities and Colleges (NAAC).
- Strengthening of undergraduate and postgraduate education and research in colleges.
  COSIP, COHSSIP, ULIP, Examination Reforms.
- Quality Improvement Programmes.
  SAP/COSIST/INFLIBNET/IUCs/USIC Research Projects/Fellowships.
- Adult, Continuing and Distance Education, Media Centres and Management of Higher Education.

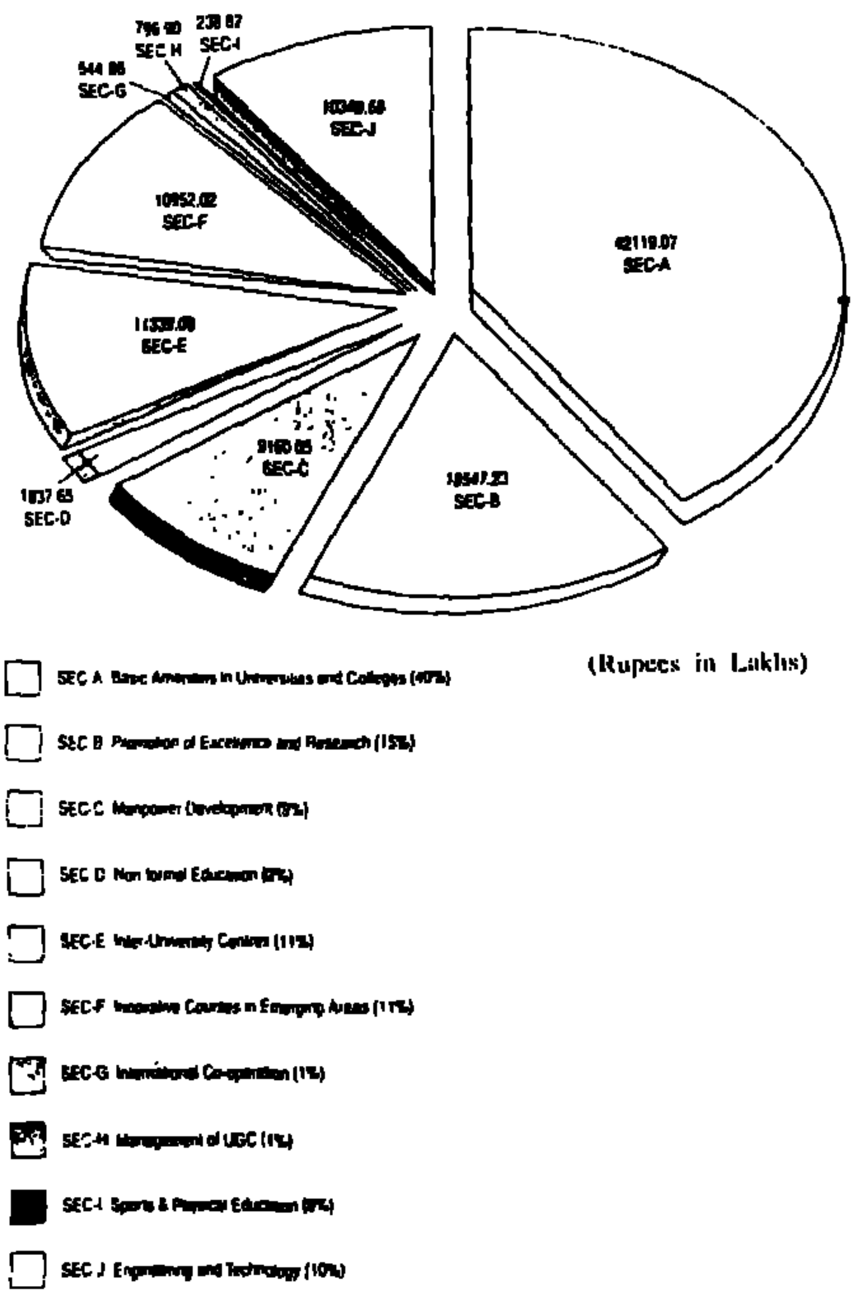

Fig. 1 : Plan Grants Released (Sectorwise) during VIIIth Plan Period 1992-93 to 1996-97

Salient Features of Thrust Areas of IXth Plan

- Infrastructure development of universities and colleges.
- Relevance-vocational education, revision of curriculum, orientation of teachers, strengthening of emerging areas and innovative programmes, value education.
- Promotion of Excellence and quality.
- SAP/COSIST/Research awards/Cultural Exchange Programmes, NET, COSIP, COHSSIP, Networking of Universities (INFLIBNET).
- Inter-University Centres, Accreditation of Universities/Colleges (NAAC).
- Areas of Equity—Special Schemes for women, SC/ST, differently abled persons.
- Resource mobilisation, State Council of higher education.
- Computers to universities/colleges, technology courses for women.

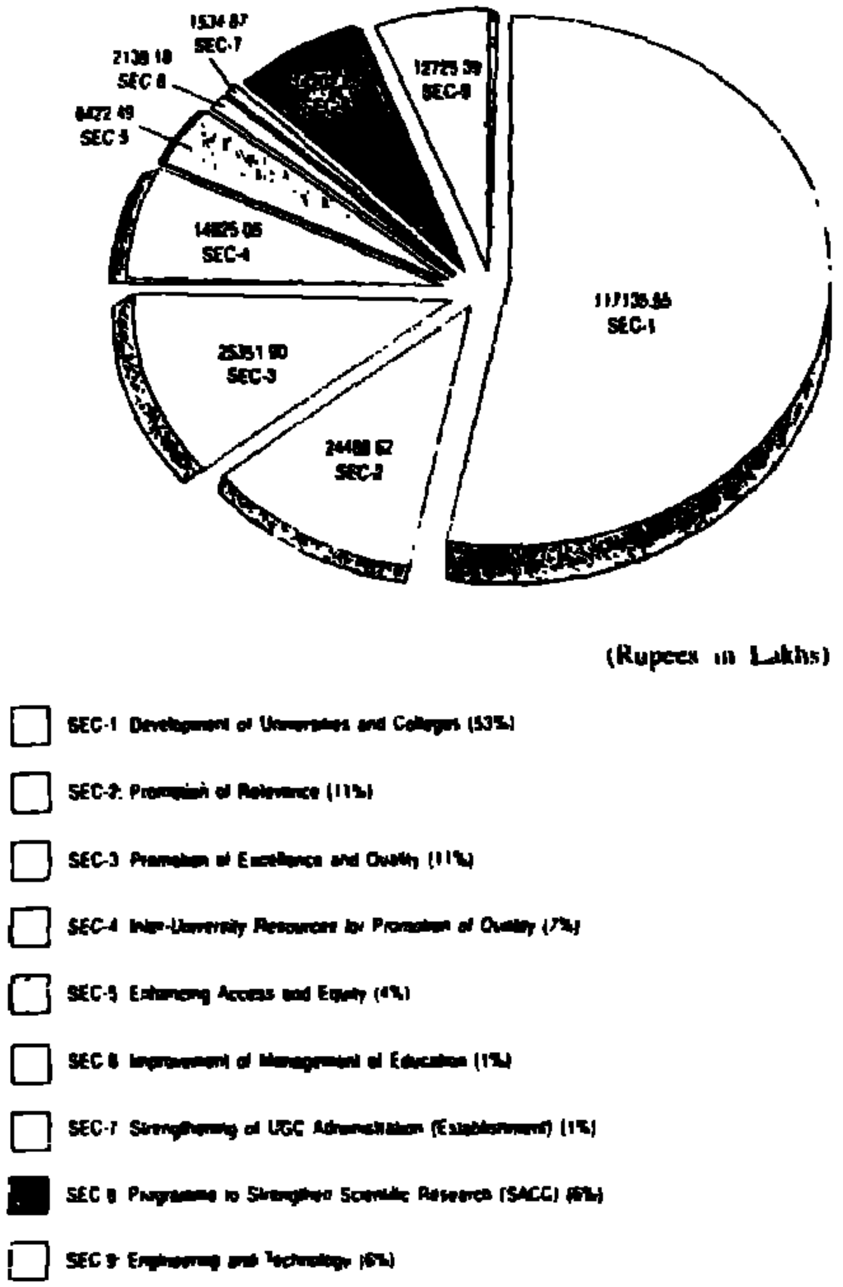

Fig. 2 : Plan Grants Released/(Sector-wise) during IXth Plan Period 1997-98 to 2000-2002

Salient Features of Thrust Areas of Xth Plan

During the Xth Plan the UGC would be having the following thrust directions:

- Identification of Universities and Colleges with potential.
- Cafeteria approach to education.
- Clubbing of open and conventional system of education. Open and flexible approach for pursuing degree and advanced diploma and/or dual degree simultaneously.
- Creation of information flow network in the higher education institutions.
- Modernisation of teaching.
- Creation of higher end institutions in science in collaboration with National Research Laboratories comparable to IITs.
- Strengthening of research.
- Identifying and supporting institutions for focused research in traditional subjects like Sanskrit and Occult Sciences and inter-disciplinary subjects like Biotechnology, Genomic Subjects, Defence Strategies, Patenting and Intellectual Property Rights.
- Support outreach activities like value education, positive health and life skills and mind and consciousness studies.
- Professional management of higher education institutions.
- Promotion of internalisation and export of higher education including study India abroad programme.
- Encouraging resource mobilisation.
- Incentives for academic, administrative and financial reforms.

UGC's plans and policies are projected on the lines of the thrust areas which are identified by the educationists, administrators and policy makers from time-to-time and are projected for a particular plan period. For example, in the VIIIth Five Year Plan the restructuring of courses, NET, quality concerns etc. had been projected as major points of concern, whereas the strengthening of basic infrastructure, vocationalisation, promotion of excellence and quality, increase in access, resource mobilisation, ensuring equity etc. were some of the thrust areas of the IXth Five Year Plan. Major expenditure was made in the sector of general development of universities and colleges in which the 40% share of total allocations during the VIIIth Plan period was increased to 53% in the IXth Plan period. Promotion of relevance, excellence and quality were the second important sectors where 11% of the total expenditure was made during the IXth Plan period. The sectoral priorities had a slight variation during the VIIIth Plan period in tune with the thrust areas. However, the general development was the common core area. The next priority was accorded to the area of promotion of excellence and research which attracted a share of 15% followed by expenditure on inter-university centres and innovative courses in emerging areas which had 11% each, during the VIIIth Plan period. A comparision of the sectoral distribution may be made from the Fig. 1 and 2. In a way to understand the overall actual distributional dynamics for all universities, the same may be understood more categorically if we peruse the allocational pattern to all universities of the country under the said sectoral priorities. In the example year of 1998-99, the Central universities were allocated a sum of Rs. 71.68 and Rs. 637.45 crores, respectively under Plan as well as Non-plan heads. Under this reference year altogether 116 State universities (excluding medical and agricultural universities) were released Rs. 110.17 Crores against their developmental programmes, including specific schemes. Out of 21 states, the maximum UGC assistance was attracted for Maharashtra (13.28 Crores) followed by Andhra Pradesh (11.40) and the minimal was reflected in the north-eastern states, where Arunachal Pradesh and Tripura could get only 0.60 Crores. Deemed to be universities, declared under the section 3 of the UGC Act 1956, for doing work of very high standard in a specific area were 30 and 26, in number in order to fetch Plan and Non-plan assistance, respectively, under the reference year. A sum of Rs. 24 Crores was released under Plan activities for these institutions, whereas Rs. 59.18 Crores were allocated for non-plan expenditure. Institutional details have been presented in Fig. 3-7.

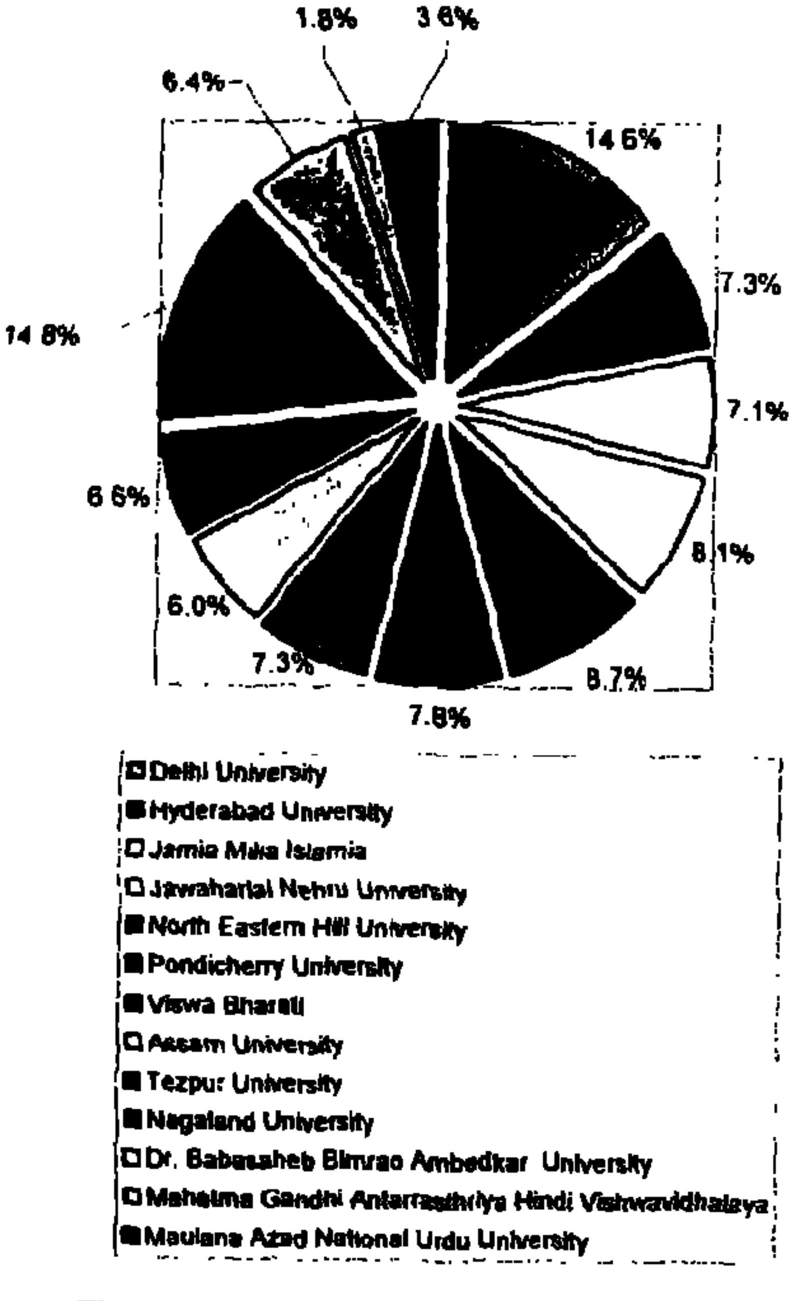

Fig. 3 : Plan Assistance of Central Universities 1998-99

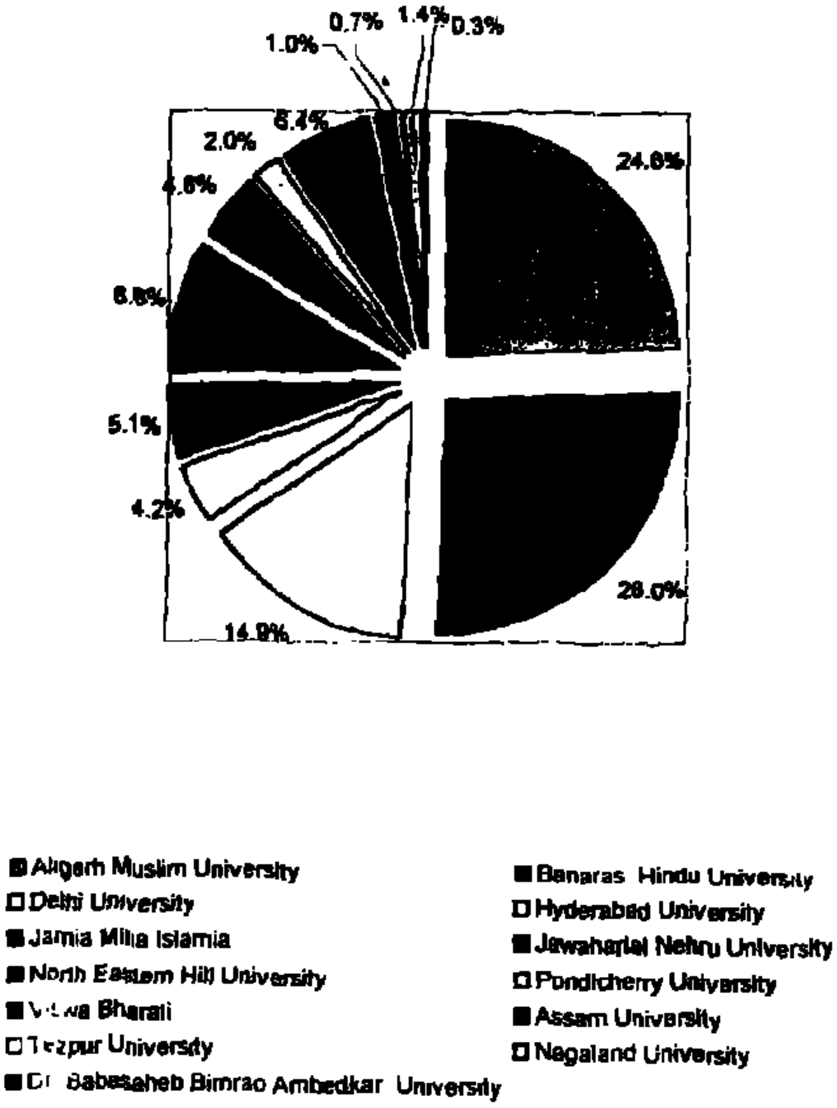

Fig. 4 : Non-Plan Assistance to Central Universities 1998-99

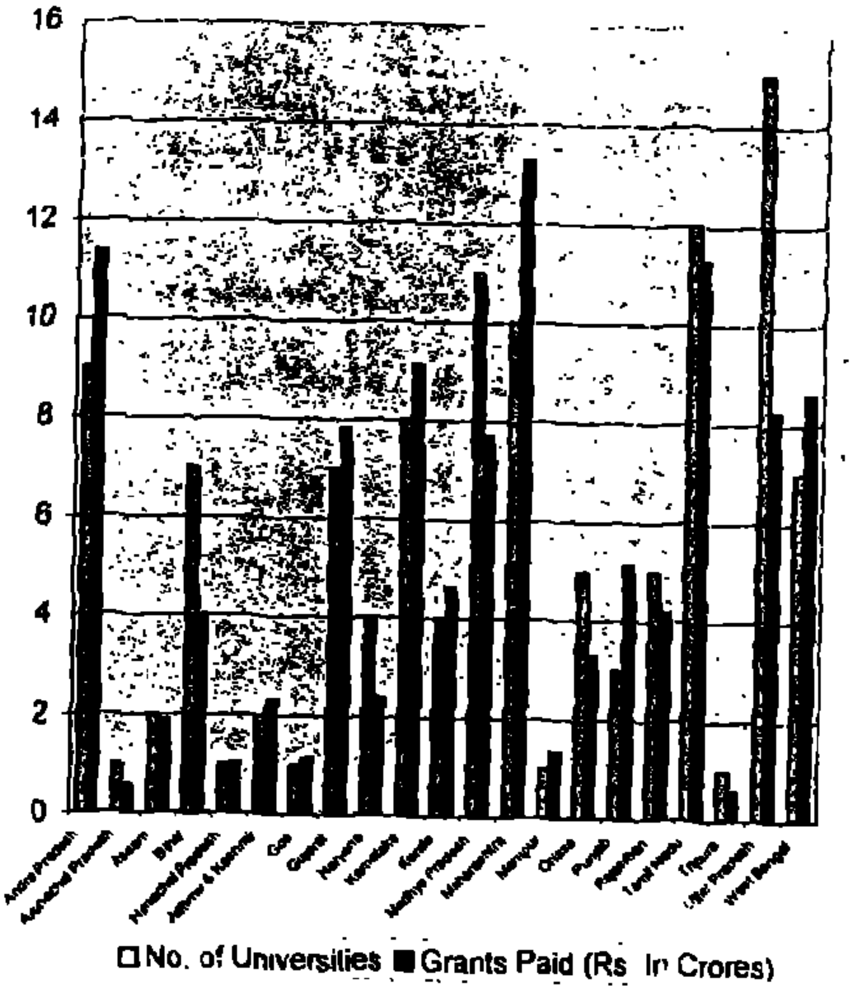

Fig. 5 : Grants paid to the state universities 1998-99

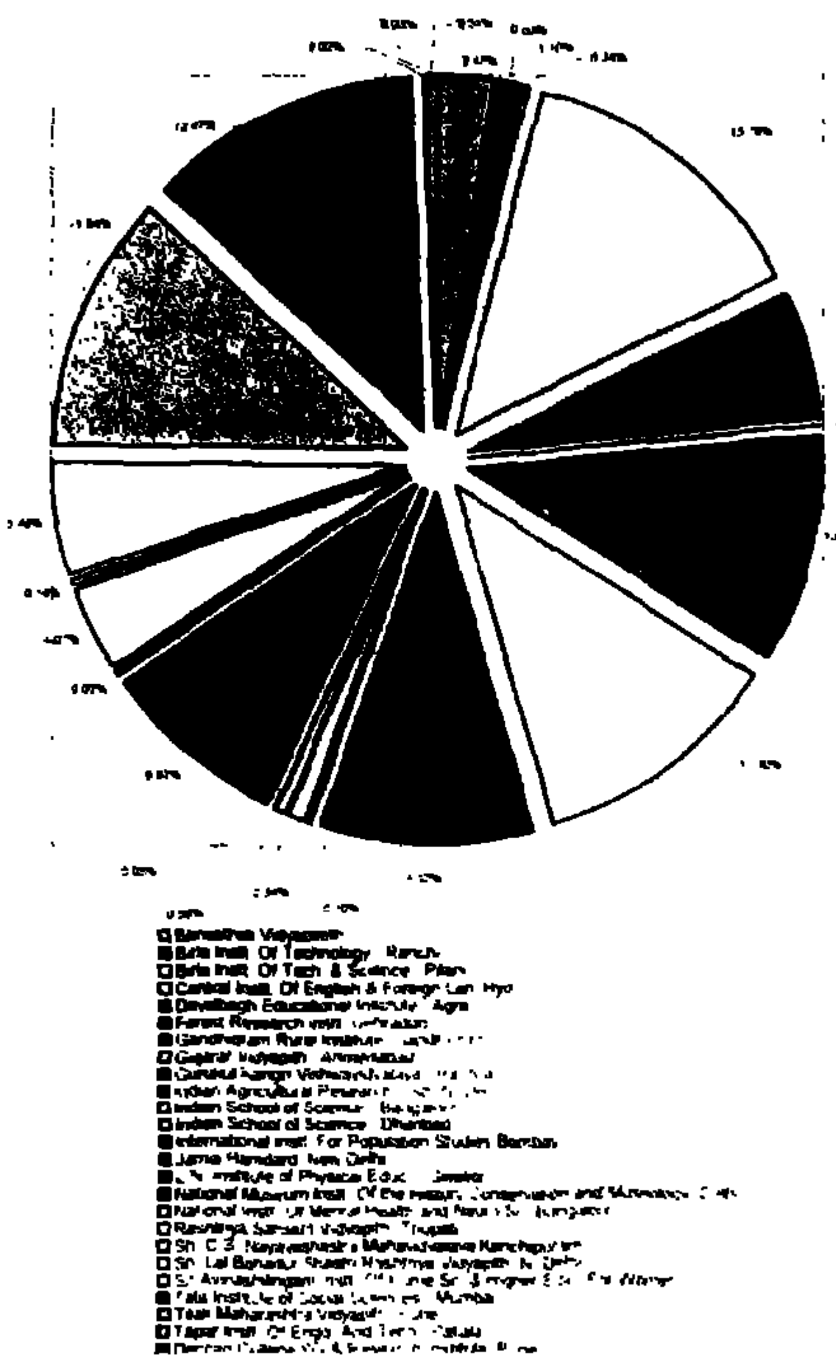

Fig. 6 : Non-plan assistance of Institutions deemed to be universities during 1998-99

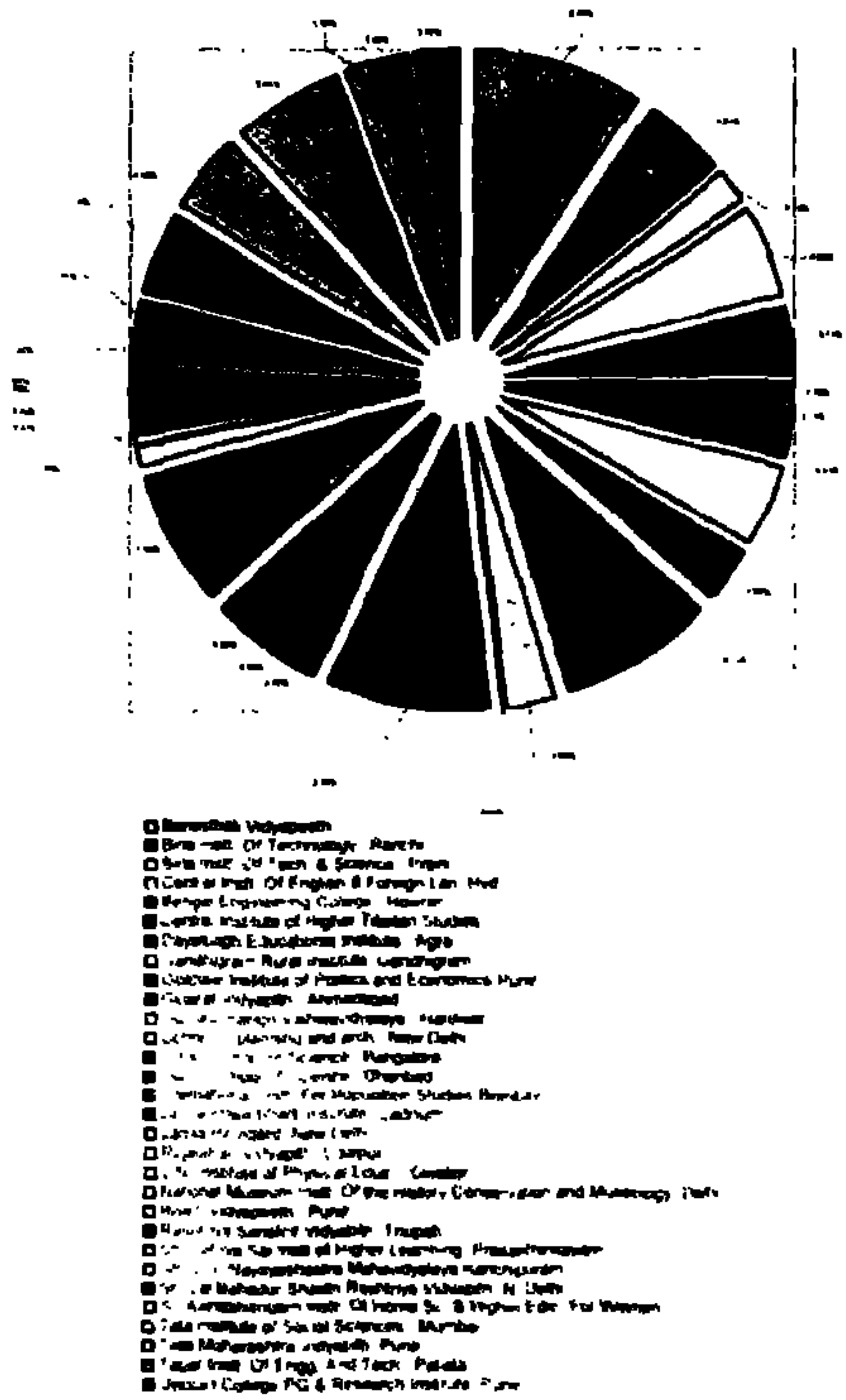

Fig. 7 : Assistance of Institutions deemed to be University during 1998-99

In regard of the collegiate education, Maharashtra was at the top, where its 462 colleges could get financial assistance against various schemes, to the tune of Rs. 4683.70 lacs, out of 4066 colleges of the country, eligible for such a help and a total plan allocation of Rs. 40514.39 lacs, where the country has almost 11,089 colleges. Dadar and Nagar Haveli and Lakshadweep were the two states out of 29 states of the Indian union where no financial assistance was given. The distributional details have been projected in the Fig. 8. Colleges of Delhi and constituent colleges of Banaras Hindu University get full maintenance grant and they could fetch Rs. 246.95 crores and Rs. 1.11 crore, respectively for the year 1998-99 (UGC Annual Report 1995-99).

Specific UGC Programmes for enhancing Quality and ensuring Relevance

Scheme of Special Assistance Programme, started back in the year 1963 on the recommendations of the First Education Commission, has created a specific impact in strengthening those Departments which have shown the potential for excellence in teaching and research for advanced academic prusuits, at par with international standards. These centres have been the feeder departments for creating Centres for Advanced studies. The complimentary and supplementary schemes for this concept have been the scheme of Department of special assistance (DSA) and Departmental Research Support (DRS). The summer institute for teachers, attachment programme for meritorious students, collaborative programmes with foreign institutions, institution-industry linkages, etc., have created a mark of excellence in many disciplines.

COSIST programme for strengthening the infrastructure especially in regard of acquiring

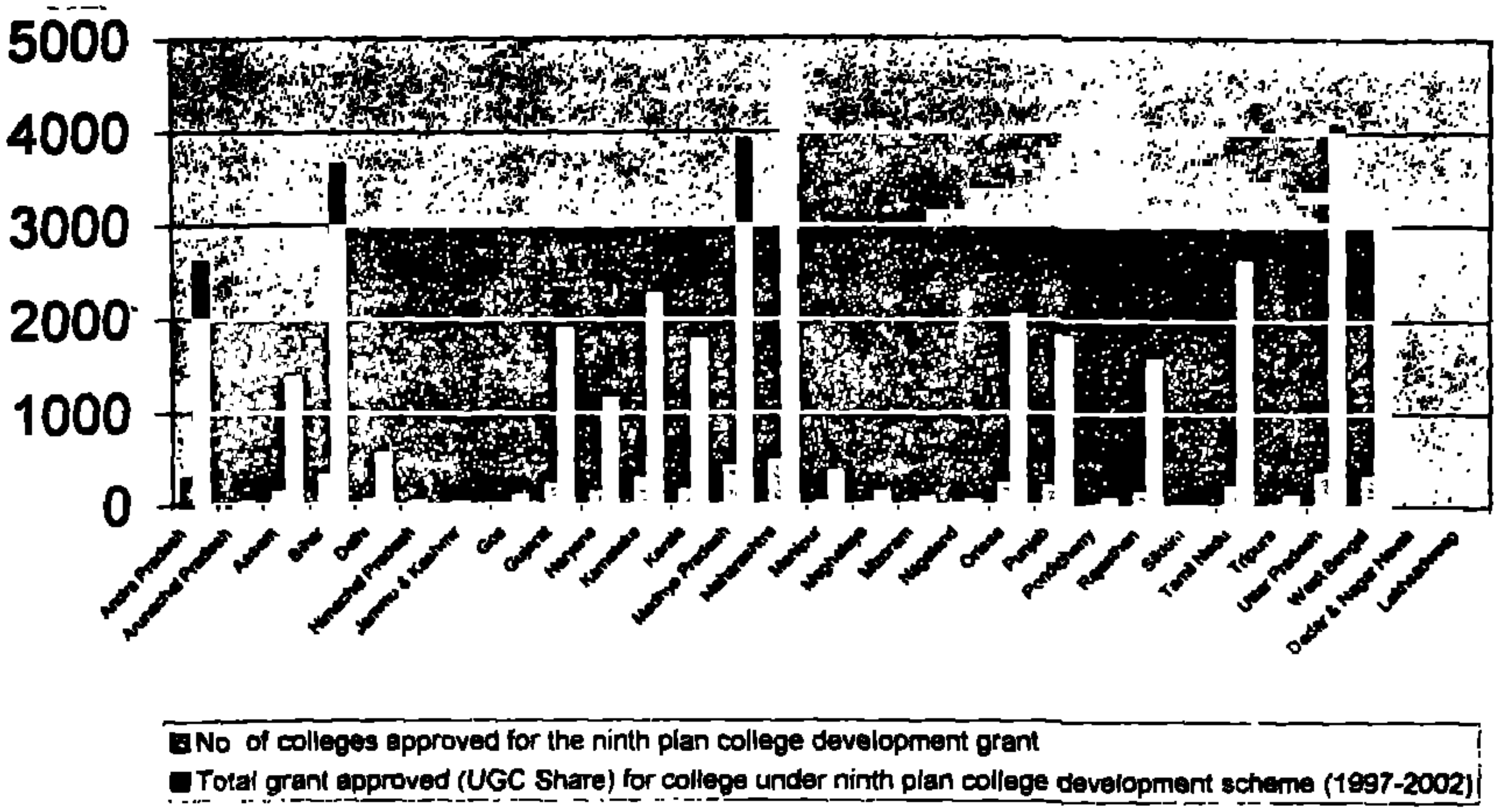

Fig. 8 : Statewise details of Ninth Plan Grants Release to Colleges during 1998-99

sophisticated equipment and upgrading the existing S & T infrastructure and USIC programme for creation of facilities for maintenance of equipment are some of the best suited programmes which have contributed in ensuring quality in teaching and research.

Another good effort has been made by way of identifying thirty-five vocational subjects with enough scope for on-job training programmes has benefited more than one thousand five hundred colleges since inception of this scheme from the year 1994-95. Although brought under clouds, the efforts for upgrading the syllabus and bringing new things/concepts for teaching of students is a welcome effort in relation to ensuring quality with relevance. Similarly, forty eight Academic Staff Colleges of the country are also trying to orient and refresh the existing members of the faculty through their orientation and refresher programmes.

Although heavily criticised that NET has devalued the existing Ph.D. degrees, it has been felt that this examination was a desirable strategy for improving the quality of higher education (Paul and Ramanathan, 2001).

Schemes for the award of major and minor research projects is also an important area which has promoted the research endeavour of young as well as old faculty members. Schemes of Teacher fellowships, visiting fellowships, schemes under unassigned grant have complimented and supplemented the dimensions of creativity in the members of the faculty.

Towards Innovations

Innovative approaches have become an integral part of global social and economic revolution, particularly through expertise in creating and handling of knowledge that offer great potential for human advance and for enriching the quality of human life, especially because of shrinking space, shrinking time and disappearing borders in the era of a revolution in information and communication technologies. The growing interconnectedness of all the sciences is one of the principal thrusts of our time which is making innovativeness a compulsion.

UGC has realised these time and context specific compulsions and has chosen five Central and eleven state universities to undertake area studies programme. Similarly the UGC telecast through the consortium of Educational Communication has established the credibility of nodal agency for utilising the electronic media in education, coordination and monitoring the development of studies, research and production of ETV programmes through 17 media centres spread all over the country. In addition to the programme of USIC, seven National Centres for providing sophisticated instrumentation facilities have given boost to the research pursuits.

In regard of UGC's efforts for promotion, preservation of Indian culture, heritage, value education and societal responsibilities, programmes on Gandhian Studies, Buddhist Studies, Nehru Studies, Ambedkar Studies, Human Rights Education, Value-oriented education, Adult, Continuing and Extension education, Population education, creation of special cells for SC/ST's, Remedial Coaching Centres, Women's studies, etc., have shown encouraging results. Exchange of foreign language teachers, with about thirty six countries has also given a boost to the teaching of languages in the country. UGC's participation in the implementation of programmes on SAARC Chairs/Fellowships, Commonwealth Academic Staff Fellowships, Sailzbury seminar, Shastri-Indo-Canadian programme, etc., have helped the creative manpower of the country to develop their capabilities and interact with the academia abroad.

The Tenth Plan Scenario

The Tenth Five Year Plan has started at a very crucial and defining moment of history where UGC has to make a significant approach for strengthening and advancing higher education in the first decade of the 21st Century in a competitive situation where the country is relocating itself to face the challenges posed by globalization at one end where higher education and research would act as essential components of culture, socio-economic and environmentally sustainable developments of individuals and various communities, and on the other hand the questions pertaining to access, equity, number, relevance, quality and resource crunch pose a bigger challenge. The new paradigm, in higher education, shall involve creation of intellects at par with the world standards and also training of skilled human power at a mass level without making a compromise on quality. Therefore the national agenda for change would require to adopt a forward-looking strategy for investing in people so that the human resources generated can imbibe the skills to succeed in an interdependent world while also keeping an eye on the ground realities pertaining to access and equity.

The centre of complexities and contradictions of the Indian Higher education System moves more acutely around the undergraduate education, which account for about 88% and is devoid of innovativeness. Most of the postgraduate teaching is also organized in colleges which have a poor infrastrucure and address the dominance of affiliating structure that has provided more for hide (from responsibility and accountability) and seek (for more perks and less workload) opportunity and much more than that where there is a complete lack of professional approach in management of higher education in this world of ICT dominance. Under such an intriguing scenario, how should one plan for funds, that are bound to be in scarcity, and visualize for their deployment so as to retain India's newly found identity of a country producing value-added graduates in all disciplines and at the same time address issues that are diagonally opposite to this identity is a question that would make the best of the best education planners dumb folded. The best strategy would be to develop a multi-layered funding philosophy and adopt a multi-pronged approach, which would balance the needs of opposite demands while forging ahead towards better higher education system, which is just apt for emerging knowledge society (UGC Profile, 2001). The key elements identified by UGC for making efforts to bring changes across the fabric of the system of higher education which has been torn between a rigid past and an enchanting future, are as follows:

- Pursue, at enhanced level of funding, normal development grant to colleges and universities.
- Provide special funding for backward area location as well as young colleges and universities.
- Identify colleges and universities with potentials and fund them to reach excellence in teaching and research with greater academic, administrative and financial flexibility.
- Be creative and support credit based 'cafeteria' approach education especially in autonomous colleges as well as colleges and universities with potentials for excellence.
- Promote effective clubbing of open and conventional systems to address increasing demand in higher education.
- Intensify fundamental education with good grounding and fortify it with add-on-utility specialisation.
- Propagate parallel education concept to do degree and diploma or dual degree in sheer conventional and/or clubbed open and conventional system.
- Promote college-university joint degree conferring concept.

- Create information flow network between colleges and universities.
- Promote the creation and effective use of multimedia to supplement classroom and laboratory teaching.
- Create institutions, in link with research laboratories, for promoting integrated five years teaching in sciences disciplines with imbibed research component.
- Pursue skill improvement activity for teachers.
- Reward innovativeness in teaching and research.
- Strengthen individual research and support research-ambience creation activities.
- Support outreach activities.
- Focus programmes for women, SC/ST and differently-abled groups in society. Develop ambience and culture for professional management of higher education institution through the use of computers and training of administrators.
- Promote internationalization and export of higher education.
- Give incentives for academic, administrative and financial reform.
- Encourage resource mobilisation.

In order to spell into action on the above mentioned key elements and the identified thurst directions (See Box) UGC has recognised ten sectors for initiation of new schemes and continuation of appropriate old schemes which are as follows:

Sector 1: General Development of Universities

This would incorporate the assistance for staff (teaching as well as non-teaching), equipment, books and journals, buildings, campus development, health care, student amenities etc.

Sector 2: Focused Development of Universities and Colleges

This will incorporate programmes of assistance to universities and colleges of backward areas, young colleges and universities, autonomous colleges, removal of obsolescence from universities, creation of digital repository of research and teaching material, development of sports infrastructure, industrialization of teaching and research in inter-disciplinary areas etc.

Sector 3: Quality and Excellence

This will comprise of programmes on developing colleges and universities with potential for excellence, development of teaching courseware including multimedia content material and courseware repository development, reforms, accreditation, testing and promotion of structural convergence of conventional and open education approach.

Sector 4: Relevance and Development of Professional Disciplines

Promotion of skill-oriented-add-on-courses, development of curriculum, strengthening of teaching and research in emerging areas and area studies and Academic Staff Colleges would be some of the core areas in this sector.

Sector 5: Research and Development

This sector will spread its activity panorama on programmes like COSIST, DRS, DSA, CAS, COSIP, SAP, COHSSIP, instruments maintenance, creation of advanced centres for science education and research, awarding National Lectureships, research awards, *utilising services of retired teachers, establishing inter* university Centres and National Facilities, outreach activities and life long learning, adult and continuing programmes, etc.

Sector 6 : Value Education, Human Rights and Duties Education including Special Studies

This sector shall focus on the promotion of traditional languages, history of sciences and ancient heritage, interaction with business community (Adjunct Professors), special educational activities including yoga, mind and human consciousness, positive health, career, personality, entrepreneuring development, community development, community development and allied activities in addition to population education.

Sector 7: Information and Communication Infrastructure

This sector shall endeavour for ensuring an information flow network through Intranets and Internets in colleges and universities and programmes to make teachers, administrators and disadvantageous sections computer literate.

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Sector 7: Information and Communication Infrastructure

This sector shall endeavour for ensuring an information flow network through Intranets and Internets in colleges and universities and programmes to make teachers, administrators and disadvantageous sections computer literate.

Sector 8: Resources Mobilisation and Management

This sectors shall lay programmes to adopt a professional managemental approach for an effective mobilisation of resources through giving incentives, training of administrators, establishing College Development Councils and State Councils of Higher Education.

Sector 9: Export of Higher Education and Reorientation of International Cooperation

This challenging area shall witness grants for promotion of export of higher education where universities would be allowed to open foreign campuses, 15% supernumerary seats, which have already been created in Indian universities would be more effectively utilised and collaborative programmes would find the front seat.

Sector 10 : Special Schemes

Establishing Women's hostels, Day Care Centres, Women Studies Centres, part-time fellowships for women, strengthening of infrastructure for women students and teachers, family studies, strengthening of schemes for disadvantaged sections like remedial coacing, SC/ST Cells, Coaching for NET, Creation of facilities for differently abled persons, special prorgammes for North-East and Kashmir and strengthening of UGC's own administration would find prominent place, in this sector.

Sector 11 : Engineering and Technology Education

In this sector schemes would be taken up for strengthening the engineering and technology education through providing general development grant to Engineering and Technical universities including Management Departments, ICT based educational programmes, SAP in engineering discipline, introduction of innovative programmes and research programmes.

Looking Beyond

To treat UGC mainly as a grant-giving body would circumscribe its functioning. UGC's role on the road to professional excellence as an apex body to determine and coordinate standards can make the universities and colleges to develop as a focal point of activities to spread and sustain the torch of life-long-learning in the era of globalisation, especially when GATs becomes operational at full swing and Indian higher education has to redefine its priorities and meet challenges at fronts like consumption abroad, cross border supply, natural presence and commercial presence in the midst of the foreign universities. Where in the global village the emergence of knowledge centric society in the midst of the explosion of ICT's would be constantly demanding the radical changes in the higher education system, UGC has to perform a multi-dimensional role in production of new knowledge, spread of the existing knowledge, imbibing of the knowledge produced elsewhere by the creative manpower of the Nation in a adapted way which suits the spirit of the Indian society and boost the existing teaching and research programmes without making any compromise with quality. UGC has to break its image of a mechanical fund disbursing organisation and strive to make all efforts for achieving UNESCO's (1998) vision on higher education, which emphasises that higher education must promote development of the whole person and train responsible, informed citizens, committed to working for a better society in the future.

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Improving Teaching Effectiveness in Library and Information Science Education

Nataraj B. Vibhuti
(International Institute for Advanced Studies (IIAS), Dharwad - 580 007)

Automation of Indian libraries and rapid development of information and communication technologies has spread the waves of competition amongst all sectors of Library and Information Science field. Quality, reliability, efficiency and competitiveness are the watchwords for the Librarian professional for their survival and growth. Libraries and Information centres can't achieve the set objectives without the all-important human resource. The expectations of Library and Information Science field at present are not the same as before. They want the librarians, who are going to become information providers. Thus there is a change in quality of librarians expected by our libraries and information centres.

The responsibility of the Library and Information Science Institutions has become all the more important in the present information technology scenario. The objective of Library and Information Science institutions is not only to produce the librarians with the degree, but it has got the moral responsibility of placing the students in appropriate jobs that they fit in. The failure to place the students in proper jobs is the indication of substandard output. This leads to underemployment and unemployment of Library and Information Science graduates.

Time has now come for the institutions to produce the graduates who meet the expectations of users readers. To do this, we have to redesign the Black box of input-output models, i.e., the process of teaching. How to design and measure effectiveness of teaching in Library and Information Science Education? Effectiveness is the degree of accomplishment of an objective with respect to quality and timeliness. It is often stated that:

To improve effectiveness, you must manage.

To manage effectiveness, you must control.

To control effectiveness, you must measure.

To measure effectiveness, you must define.

To measure effectiveness of teaching, we must define the term 'Quality of Output'.

Who is going to specify the quality standards? for Library and Information Science academic institutions? Definitely, it is the job market where our output is going to be employed *i.e.*, Libraries and Information Centres - academic, public, special libraries and some private information centres. To bring the quality in output, the institutions have to produce the Library and Information Science graduates with requisite quality standards expected by prospective Library and Information Centres. Under the present 'Paperless Society' scenario, the quality standards expected can be spelt out as follows:

- A sound theoretical and practical knowledge in the chosen field of Library and Information Science.
- Ability to identify, analyse and suggest solution to the problems relating to Library and Information field.
- Adaptability and flexibility to changing Library and Information Centres environment.
- Be able to get along with people and be a strong believer of success through team effort, and
- Strong believer of Librarianship ethics.

To meet these output standards, the Library and Information Science graduates should possess soft skills along with their library skills. All these days, our Library and Information Science institutions have done a yeoman's service in inculcating the hard skills i.e. technical skills, but they have never taken it seriously to even think of the soft skills. In today's competitive world, soft skills have become all the more essential for practicing profession with hard skills. Thus the time has come for giving due emphasis to develop these soft skills.

Designing the Process of Teaching

It is really a challenge before the institutions to design the process of teaching to inculcate a good blend of soft skills along with technical skills. Conventional teaching methodologies like lecturing, laboratory work assignments a · effective to impart hard skills, but we have to add dimensions to these to make an all round personality development of a student. There are:

- Case studies pertaining to the different sections

Contd. on page 18

Gender Inequality in Edu

Sl No		Adult literacy		Youth literacy	
		Female rate (% age 15 and above) 2000	*Female rate as % of male rate 2000*	*Female rate (% age 15-24) 2000*	*Female rate as % of male rate 2000*
1	India	45.4	66	64.8	81
2	Swaziland	78.6	97	91.2	102
3	Botswana	79.8	107	92.1	109
4	Myanmar	80.5	91	90.5	99
5	Zimbabwe	84.7	91	95.7	97
6	Ghana	62.9	78	88.3	94
7	Cambodia	57.7	72	72.8	89
8	Vanuatu	..	..	..	..
9	Lesotho	93.6	129	98.5	119
10	Papua New Guinea	56.8	80	71.3	89
11	Kenya	76.0	86	94.2	98
12	Cameroon	69.5	84	93.0	99
13	Congo	74.4	85	96.8	99
14	Comoros	48.7	77	51.8	79
15	Pakistan	27.9	48	41.9	59
16	Sudan	46.3	67	71.5	86
17	Bhutan	..	..	..	
18	Togo	42.5	59	63.7	73
19	Nepal	24.0	40	42.8	56
20	Lao People's Dem. Rep.	33.2	52	58.2	71
21	Yemen	25.2	37	45.9	55
22	Bangladesh	29.9	57	39.8	65
23	Haiti	47.8	92	64.5	100
24	Madagascar	59.7	81	76.6	92
25	Nigeria	55.7	77	83.8	93
26	Dijibouti	54.4	72	79.4	90
27	Uganda	56.8	73	72.1	84

Notes:(a) Tertiary enrolment is generally calculated as a gross ratio *(b)* The ratio is underestimate, as many students pursue their studies in nearby countries. *(c)* Excludes Turkish institutions. *Columns 1* and 3: UNESCO 2002a: *column 2*: calculated on the basis of data on adult literacy rates from UNESO (2002a); *column 4*: calculated on the basis of data on youth literacy rates from UNESCO (2002a); *columns* 5 and 7: UNESCO 2002c; *column 6*: calculated on the basis of data on net primary enrolment ratios from UNESCO (2002c); *column 8*: calculated on the basis of data on net secondary enrolment ratios from UNESCO (2002c); *column 9* UNESCO 2002b; *column 10*: calculated on the basis of data on gross tertiary enrolment ratios from UNESCO (2002b).

lected Countries–IV

Net primary enrolment		*Net secondary enrolment*		*Gross tertiary enrolment*	
Female ratio (%) 1998	*Female ratio as % of male ratio 1998*	*Female ratio (%) 1998*	*Female ratio as % of male ratio 1998*	*Female ratio (%) 1998*	*Female ratio as % of male ratio 1998*
..	..	31	68	..	..
78	102	32	84	5	89
82	104	61	118	3	79
..	..	..	..	..	..
..	..	..	..	..	..
..	..	..	..	..	..
97	88	14	54	(.)	29
100	98	..	..	(.)	63
64	115	19	194	3	178
78	86	18	69	2	60
..	..	..	..	1	47
.	..	..	..	..	..
..	..	..	..	..	..
46	85	..	..	1	75
.	..	..	..	..	..
42	83	..	..	7	89
15	89	5	101	..	..
78	79	14	44	1	21
..	..	..	..	..	..
73	92	23	79	2	48
44	58	20	40	5	29
100	96	..	..	3	51
82	106	..	..	..	..
63	102	13	107	2	85
..	..	..	..	..	..
27	72	..	..	(.)	100
100	100	8	85	1	53

Source: Deepening Democracy in a Fragmented World, Human Development Report, 2002, UNDP, Oxford University Press, New York.

Contd. from page 15

of subjects based upon the real life situations where students get a feel of the field problems that help feel the environment in which they are going to work.

- Compulsory inplant training during vacations to have a feel of Library and Information Centres climate are working of various organizations. This helps the students to have an exposure to various functional areas of the subject fields.
- Guest lectures from Library professionals where students get the first hand information about what is going on in the Library Science field.
- Interaction with libraries and the staff of it, in respect of faculty exchange programmes, students' projects, seminars, where the problem identification solving capabilities will be enhanced.
- Keeping in touch with the personnel departments of various types of libraries and information centres, to know the needs and expectations from students for recruitment.
- Creating a platform for students under the guidance of a staff, which helps the students develop soft skills.

These techniques help meet the quality standards expected. The input for designing the process is staff. This being a change is always to be handled by proper change strategies. The first step towards this is to change the mindset of the teachers and develop them first to accept this challenge. The institutions can formulate their own strategies for identifying the training needs of their teachers and equip them to face this challenge. A well trained and motivated staff is going to contribute positively towards this process of teaching to get the expected output quality.

To assess the effectiveness of our teaching, the best indicator will be how well our students are accepted by the job market. A systematic data bank is to be maintained to have the first hand information regarding the students' placement. The analysis of the data with respect to the following parameters should be done on a continuing basis:

- Year-branch-wise details of our students their placements.
- Who has recruited them?
  i) Academic libraries.
  ii) Public libraries.
  iii) Special libraries.
  iv) Any other private information centres.
- How many students are not recruited this year?

This really shows the institution's concern about the students and will reflect in the quality of the output as well as the process of teaching and its effectiveness.

Suggestions for Effective Teaching

Understand

- Modern concepts of Library and Information Science.
- Library and Information Science skills and their relevance.
- What skills make these effective?
- The complexity of enterprise wide information.

Develop

- Awareness workshops and events
- Experience-based learning
- Monitoring networks and role models
- Partnership with other professional bodies and organisations to gain and transfer skills
- Working relationships with library staff
- A profession that reflects the complexity and range of information management skills within the corporate bodies
- A virtual university
- Centres of excellence
- Accredited modules.

Conclusion

With the increasing impact of Information Technology on higher education, all those concerned with higher education today are attempting to grasp how it could help in modernizing the process of effective teaching. And in this context we should change the concepts of Library and Information Science teaching methodologies. So, for improving the effectiveness in teaching in technical education we have to define the quality expectations of the employers from Library Science graduates. The specifications of the quality of output are spelt by employers *i.e.* libraries and information centres. Based upon the output standards expected, we have to design the process of teaching to have a proper mix of hard skills and soft skills. The feedback system regarding the students' placement has to be devised to monitor the effectiveness. ❑

CAMPUS NEWS

Symposium on Qualitative Research in Social Science

A symposium on "Qualitative Research in Social Sciences' was organised under the auspices of Bhartiya Shiksha Shodh Sansthan Kanpur cell recently. Chief Guest Shri Satish Mahana, Minister of State for Urban Development U.P. expressing his concern on the falling standards of education, called upon the teachers to fulfill their duties within the limited resources available. Shri Mahana emphasised the importance of research and explained that government planning is always done on the basis of survey results and the plans fail if the results do not present the reality.

In his presidential address, Dr. Shanker Saran Srivastava urged the teachers to come out of the paid servant mentality and take interest in the primary task of a teacher i.e dissemination of knowledge and research. He called upon the teachers to keep themselves aware of the new dimensions in the field of research and help in its development. Prof. K.P. Pandey differentiated between the two major research paradigms - logical positivistic and phenomenological research. Till recently, logical positivistic research was popular, but it did not disclose the reality situation. Explaining the process of phenomenological research paradigm, he pointed out that qualitative research helps in planning processes as it depicts the real situation. He also explained the data collection technique and data analysis used in qualitative research. He pointed out the example areas of research questions in education in the Indian context, which may be answered through qualitative research.

Prof. Suraksha Pal in her lecture urged the research scholars and research supervisors to go in for qualitative research, she said that the research scholar should not feel hesitant in using this method on the pretext of absence of hypotheses and anticipating rejection of research/synopsis. She opined, if we want to improve quality in research work, we have to go in for qualitative research processes.

Dr. Saraswati Agrawal, Co-ordinator of Kanpur cell conducted the sessions.

National Conference on Change Management

The Department of library and Information Science, Library and Information Science Association and Alumni Association of Library and Information Science of Bishop Heber College, Tiruchirappalli are jointly 'organising a National Conference on Change Management in Library and Information Centres during 21 and 22 February, 2003. Main theme of the conference is Change Management in Library and Information Centres.

The sub-themes are—New Developments in Information Industry, Education for Library and Information Management Careers; Emerging Market for Information Professionals; Staff Training and Development Programmes; Information Resource Administration and Issues in Library Work Practice. Interested persons may contribute on the main theme for presentation in the conference. For further details contact Mrs. S Ally Somam, Organising Secretary and Head, Department of Library and Information Science, Bishop Heber College, Tiruchirappalli-620 017, Tamil Nadu, India; Phone no. (0431) 2770136, (O) 2771561; email: list2003@rediffmail.com.

Rajib Goyal Prizes for Young Scientists

The Kurukshetra University has finalised the Goyal Prizes and Rajib Goyal Prizes for Young Scientists for the year 2001. While four Goyal Prizes, carrying a sum of Rs. one lac each and a gold medal will be awarded to four eminent Scientists of the country, three young scientists, below the age of 45, will receive Rajib Goyal Prizes for young scientists consisting of Rs. 50,000/- each and a silver medal.

Announcing these names, Mr. R.S. Chaudhry, Vice Chancellor of Kurukshetra University and Chairman of the Organising Committee for Goyal Prizes said that four Goyal Prizes will be conferred on Prof. K.K. Talwar, Department of Cardiology, All India Institute of Medical Sciences, New Delhi, Prof. Anil Kumar, Indian Institute of Science, Bangalore. Prof. S.K. Brahmachari, Director, Centre for Biochemical Technology, Delhi and Prof. K.N. Pathak, Vice Chancellor of Panjab University, Chandigarh for their distinguished contributions in the areas of Applied Sciences, Chemistry, Life Sciences and Physics, respectively. He further stated that Rajib Goyal Prizes for young scientists will be given to

Prof. Ramesh Chandra, Vice Chancellor, Bundelkhand University, Prof. Yogendra Singh, Ambedkar Centre for Biomedical Research (ACBR), University of Delhi and Dr. T.V. Aravindakshan of Kerala Agricultural University for their significant work in the diverse areas of Chemistry, Life Sciences and Veterinary Sciences, respectively.

Highlighting the contributions of these scientists, Prof. P. Singh, Professor Emeritus of Kurukshetra University and Co-chairman of the Organising Committee for Goyal Prizes said—Dr. Talwar has significantly contributed to the development of cardiovascular science in the country by his extensive clinical work and original research. He is performing all kinds of diagnostic and interventional procedures including endomyocardial biopsy and coronory angioplasty.

Prof. Anil Kunar has many pioneering and major research contributions in the development of nuclear magnetic resonance (NMR) methodology, which are responsible for the rapid growth of this field. He contributed enormously in the research publications of Prof. Richard Ernst who was awarded the Nobel Prize in Chemistry in 1991 for this joint work. His Fourier NMR Imaging method is the most efficient protocol for clinical human MRI and is widely used in all hospitals, said Dr. Singh.

While Prof. Brahmachari and his group was involved in the analysis of genome sequences to identify to novel sequence and structural motifs, Prof. Pathak's work makes distinct contribution in our understanding of atomic motions in liquids. Several exact rules have been derived for the dynamical correlation functions of density currents and energy fluctuations and have been successfully applied to the interpretation of experimental results, according to Prof. Singh.

Elaborating the contribution of young scientists, Prof. Singh said that it is amazing that Prof. Ramesh Chandra has made such an impressive contribution in the Chemistry and Biology despite his heavy preoccupations as the Vice Chancellor of Bundelkhand University and as the Director of ACBR, University, of Delhi. Prof. Yogendra Singh has been working in the area of bacterial diseases, specially anthrax and tuberculosis for the last several years. His contribution had led to the understanding of various steps in the action of anthrax toxin. Dr. Aravindakshan has been actively engaged in basic as well as applied research in the fields of animal biotechnology and molecular genetics, said Dr. Singh.

The Goyal Prizes were instituted by Mr. Ram S. Goyal, an NRI settled in USA, in 1991. These Prizes were run through an Advisory Board with Prof. S.P. Singh of Kurukshetra University as the Convener. In order to institutionalise these Prizes, sufficient money was transferred to Kurukshetra University in 2000 by Mr. Goyal. So far about 40 eminent scientists such as Dr. C.N.R. Rao, Dr. G. Mehta, Dr. Jayant Narlikar, Dr. R.A. Mashelkar and Dr. Kasturirangan have been conferred the Goyal Prizes.

Training Programme on Biomedical Signal

During the last two decades there has been tremendous increase in use of electronic equipment in medical field for clinical and research purposes. The field of Biomedical Engineering is fast developing and new departments are being established in universities, technical colleges, medical institutes and hospitals all over the world.

X-Ray, computed tomography, magnetic resonance imaging systems, ultrasonic imaging systems, medical thermography, telemedicine, information systems in health care form the core of major modernisation. Medical image processing is playing a critical role in almost all these areas.

Keeping this in view, the Development of Electronics and Telecommunication Engineering, Dr. Babasaheb Ambedkar Technological Universities; lenese is organising an AICTE-ISTE sponsored, national level short term training programme on Biomedical Signal and Image processing.

The principal objective of the training programme is to provide an introduction to the basic concepts and methodologies for the Biomedical Signal and Image Processing and to develop a foundation that can be used as the basis for further studies and research .The course centours are:

- Biomedical Signals: EEG, ECG, EMG, EOG.
- Imaging systems: X-ray, CT scanners, Ultrasound scanner, Nuclear Methods.
- Medical Image Analysis.
- Implementation of 3D digitizer in surgery and telesurgery.
- Information systems and standards in Health care.
- Telemedicine and Internet.
- Medical safety and ethical values.

The teachers from the engineering colleges approved by AICTE and included in the list of ISTE are eligible for free admission to the programme. Industries and other organisations may sponsor their candidates. Course fee Rs. 1500/-. In addition to it, the application form must be accompanied by a Demand Draft of Rs. 300/- (Three Hundred only) drawn on any Nationalised bank in favour of M. H. Kolekar, Course Coordinator, ISTE-STTP payable at S.B.I., Mangaon Branch towards a caution deposit, which will be refunded on participation.

Last Date of receiving applications for Participations from academic institutes is 25th January, 2003 and for participants from industries and R&D Organisations it is 10th February, 2003

For Further details contact: Prof. M.H. Kolekar, Course Coordinator, STTP on Biomedical Signal and Image Processing, Department of Electronics and Telecommunication Engineering, Dr. Babasaheb Ambedkar Technological University, Lonere : 402 103, Tal.: Mangaon, Dist. Raigad (M.S.), Phone: 02140-75081 Extn. 525, 511, 75137 (R): 75084, Fax: 02140-75044, Email: mhkolekar@rediffmail.com

Refresher Course in Pharmaceutical Sciences

A three weeks UGC Refresher Course in Pharmaceutical Sciences was organised at the University Department of Pharmacy, Annamalai University Annamalai. Mr. S. Nammalvar, Vice President (works), JK Pharmachem Ltd., Cuddalore was the Chief Guest, In his key note address Mr. Nammalvar stressed on the necessity of efficiency, quality and cooperation among the industries for success in global market.

There were 35 teacher participants drawn from various parts of the country as per UGC guidelines. The following topics were discussed: Quality management, pharmaceutical statistics, microbial enzyme technology, rational drug therapy, fermentation technology, enantioselective HPLC analysis, research methodology on toxicity study, research in traditional medicines, access to medicines through pharmacists, inventory management, free Radicals in medicines, nanoparticles, diseases and immune response, immuno assays for disease diagnosis, mangrooves—a gold mine for medicine drugs from marine source, combinatorial chemistry, chirality in organic synthesis, drug stability and ICH guidelines, synthetic analogues of naturally occurring compounds, heavy metal ions and their toxicity in human systems, atomic absorption spectroscopy, GC, applications of immunology to biotechnology, human genome project, application of modern analytical techniques in identification of damage of biomolecules, dose response curve and animal toxicity study protocol, IPR and Patents, controlled drug delivery system and their kinetics. Beside lectures on above topics there were laboratory classes on HPLC analysis and HPTLC method for herbal drugs standardisation and seminar by participants. As per UGC guidelines a test was conducted to assess the performance of the participants. An industrial trip to near by industrial complex, Cuddalore and Pondicherry was also arranged.

Dr. K. Sadasivan Pillai, Head, Department of Toxicology, International Institute of Biotechnology and Toxicology, Chennai, delivered the valedictory address. Professor B. Palaniappan, Dean, Faculty of Engineering and Technology, Annamalai University presided over the function and distributed the certificates to the participants. Dr. R. Manavalan, the Course Director and Head of the Department, welcomed the guests and participants. Dr. P. K. Manna, Professor of Pharmacy, proposed vote of thanks.

Awareness Workshops on Accreditation

The National Assessment and Accreditation Council (NAAC) in collaboration with the state governments has conducted a series of awareness programmes to sensitise the academia on issues of quality. As a apart of its nation-wide activities, the NAAC, Bangalore conducted an awareness and orientation workshop at Chandigarh for the colleges in the State of Haryana. The programme was attended by about 120 college principals and faculty members from all over the State. Prof. Rajasekharan Pillai, Director, NAAC delivered the key note address. Detailed discussions were held about the preparation of the Self-study report (SSR). The deliberations have helped to clear many apprehensions and enabled the institutions to begin working on Self-study report. The Government of Haryana took a proactive step by creating an Accreditation Cell to co-ordinate and facilitate the process of assessment and accreditation of all Government and non-government colleges. This Cell was created to ensure that all the colleges of the State are assessed and accredited by NAAC by December, 2003. The governor of Haryana also constituted a State Level Advisory Committee, headed by the Education Minister as Chairman and Higher Education Commissioner as Member Secretary to co-ordinate the various activities of colleges towards fulfilling the requirements

The Secretary, Higher Education Shri. P.K. Chowdhary, Dr. Dhanpat Singh, Director of Collegiate Education and Deputy Director Smt. K.K. Tandon took several fast paced measures resulting in submission of Self study reports by 117 colleges. Looking at the spontaneous response, the NAAC on its part has taken up the accreditation of Haryana colleges on priority basis. It has formed several clusters on the basis of geographical location, convenience to the colleges keeping in view of examinations, vacations and logistics etc.

National Case Writing Workshop

Prestige Institute of Management and Research, Indore in collaboration with Association of Indian Management Schools (AIMS) organised the ninth National Case Writing Workshop, recently. Thirty Nine delegates representing various management institutes like Bankatlal Badruka College of Information Technology, Hyderabad; Doddappa Appa Institute of MBA, Gulbarga; Wisdom Banasthali Vidhyapeeth, Banasthali; CMS Institute of Management Studies; Coimbatore; Kongu Arts and Science College, Erode; MET's Institute of Management, Mumbai; Regional College of Management, Bhubaneswar; Nirma Institute of Management, Ahmedabad; Prestige Institute of Management, Dewas and Prestige Institute of Management and Research, Indore participated in the workshop. The workshop leader Dr. Upinder Dhar, while giving a brief introduction to the case method and case teaching, explained the significance and relevance of case study as a pedagogical tool in management education.

The workshop was divided into four phases. The delegates were organised into seven teams on the basis of their functional area. There were two teams in the area of marketing and human resource each, and one in finance, operations management and systems. The teams visited three organisations - Bharat Sanchar Nigam Limited, Bharti Telenet and Shivam Enterprises in Indore During their visit, the delegates collected the information from the concerned executives of the organisations.

All the seven teams held intra-group discussions and used the information collected during their industrial visit to draft their case write ups. In all, nine cases were developed during Workshop, of which two each were in the area of Human Resources, Marketing, Systems and Operations Management and one in the area of Finance.

National Conference on Knowlege Management

The success of present day organszations lies in their ability to exploit their intangible assets rather than their ability to invest and manage their tangible (physical) assets. As competition has become global in nature, technologies proliferate making products and services obsolete rapidly, successful organizations are recognised by their ability to consistently create new knowledge, quickly disseminate it and embody it in their new products or services.

Knowledge management is a buzz word today, but successful corporations have always realised its value. Even when the concepts such as expert systems, core competencies, learning organisations and *corporate memory were in vogue, these corporations* knew that their key assets were not their buildings, market shares or their products, but they lie in its people, their knowledge and skills.

After trying everything else - from greatest products / services and best technology to virtual monopolies - in their respective markets, more and more corporations are realizing the fact that the only sustainable source of competitive advantage is their knowledge keeping this in mind, the Institute of Public Enterprise (IPF), Hyderabad is organizing a two day national conference on 'Knowledge Management' during 24-25 January 2003, at Hyderabad. The main aim of the conference is to learn from the experiences of practitioners who have implemented or are in the process of implementing the Knowledge Management in their organisations.

For futher details contact: Dr. S. Sreenivasa Murthy, Organising Secretary, Information Technology Division, Institue of Public Enterprise, Osmania University Campus, Hyderabad-500007, Tel: +91(40) 2709 5182, 2709 8145, (R) 2550 3727, Fax: + 91(40) 2709 5478, 2709 5183, Email: ipecitd@vsnl.net; srikantham_sm@rediffmail.com. ❑

National Symposium on Augmentation of Fertility in Livestock

The 18th Annual Convention and National Symposium of the Indian Society for Study of Animal Reproduction with a theme titled 'Reproductive Technologies for Augmentation of Fertility in Livestock' was held at the Indian Veterinary Research Institute, Izatnagar, recently. This convention was attended by over three hundred participants from universities, Research Institutes, State Departments of Animal Husbandry, Veterinary Pharmaceuticals, Industry, etc. from India and abroad, who deliberated on wide ranging issues related to Animal Reproduction and Reproductive Health Services.

The Chief Guest of the inaugural function, Dr. O.S. Tomar, former Director, NDRI, extolled the contributions of the society and hoped that the scientists of the society would carry on their endeavour in combating and controlling the problems of animal reproduction. He suggested the scientists to work in the close proximity of the animals to garner more knowledge regarding their problems so that they could be sorted out.

Dr. M.P. Yadav, Director, IVRI, in his presidential address, outlined the causes responsible for the failure of reproduction in animals. He said that Protozoa, Fungus, etc. are amongst the causes of reproduction problems. Reproduction problems also occur on account of genetic, hereditary and immunity problems. Besides, there are many other immunological reasons accountable for the problems of reproduction in animals. Dr. Yadav counselled to develop trained human resource and infrastructure in order that problems related to animal reproduction could be controlled and reduced. At length, he advised to evolve cheaper technology for the benefit of farmers and livestock owners.

Dr. S.N. Maurya, President, ISSAR, told that since the inception of the society, the scientists of Animal Reproduction have contributed immensely in controlling animal diseases. He talked of the importance of artificial insemination along with frozen semen technology. He said that embryo transfer technology can be used with advantage for the livestock improvement. In India, cloning is also under process in the laboratories, remarked Dr. Maurya.

Brig. (Dr.) N.M. Singhvi, Secretary, ISSAR, said that the society was one of best professional bodies having the largest number of life members in the sphere of animal husbandry. He informed that the society had been sincerely working to promote scientific knowledge of animal reproduction and their application in education as well as for the benefit of animals in general.

The Organising Secretary, Dr. S.K. Agarwal, in his brief address informed that the three-day symposium comprises of eight scientific sessions which would focus on livestock infertility, artificial insemination, obstetrical complications, cryopreservation of semen, embryo-transfer technology, in vitro fertilization, cloning, transgenic animal production and other contemporary issues. He said that this symposium would provide a forum for the scientists, teachers, planners, field veterinarians and all other personnel engaged in the field of Animal Reproduction from all over the country to exchange their views and share the experiences on better ways of reproductive management of our productive livestock. Dr. Agarwal also informed that the symposium also aims at improving the communication between clinicians, animal practitioners, veterinary gynaecologists and obstetricians on how to provide quality care and service with reproductive problems using the most current technology and treatments.

Dr. Agarwal apprised the scientific gathering of the recommendations prepared during the National Symposium. The recommendations suggested to establish an Institute of Animal Reproduction of National repute containing research, training and extension in its mandate. The society unanimously concluded to enhance the quality of Veterinary science and to take appropriate steps to lessen the paucity of academic staff. On this occasion, three distinguished scientists were bestowed with fellowships. Dr. V.K. Taneja, Deputy Director General (Animal Science), ICAR was awarded the fellowship in absentia. Six scientists were felicitated with Nil's Lager off Award, two with S.N. Luktuke Award and two with G.B. Singh Memorial Award. Young Scientist Awards were given to six scientists for their research papers. Dr. Pawan Kumar got the Best Field veterinarian Award. Merit-cum-Means Award was bestowed on Ms. Hira Mani Deca. West Bengal Chapter of ISSAR was conferred with the Best Chapter Award. ☐

Prof. G. Mehta—President AIU 2003

Prof. G Mehta, Director, Indian Institute of Science, Bangalore has taken over as the President of the Association of Indian Universities for the year 2003. He was born on June 26, 1943 at Jodhpur. He did his Master's degree in Organic Chemistry and followed it up with Ph.D. (1966). At the outset of his career he worked as Research Associate at the Michigan State University, and the Ohio State University, USA. Thereafter, he has been serving in some of the leading institutions of India like Indian Institute of Technology, Kanpur as Assistant Professor; University of Hyderabad as Founder Dean and Vice Chancellor and Indian Institute of Science as Professor.

Prof. Mehta has been actively interested in teaching chemistry and has held visiting appointments and the posts of visiting professorship at Michigan State University, USA; University of Notre Dame, USA; University of Joseph Fourier, France; Chemical Research Centre, Taiwan; Ecole Normale Superiere de Chimie, Paris, France; Kyoto Institute of Technology, Kyoto, Japan. He served as Honorary Professor at Jawaharlal Nehru Centre for Advanced Scientific Research; Srinivasa Ramanujan Research Professor of Indian National Science Academy; Merck Visiting Professor at University of Nottingham, UK; Tarrant Distinguished Visiting Professor at University of Florida, Gainessville, USA.

Prof. Mehta has made outstanding contributions to different areas of topical concern in Chemical Sciences. His research interests cover total synthesis of biologically important and architecturally challenging natural products, development of new synthetic methodologies, creation of new and aesthetically pleasing molecular entities and useful materials and study of Stereoelectronic Effects, Stereogenesis, Molecular Recognition and Photodynamic Therapy of Cancer. His synthetic strategies have been marked by brevity, simplicity and originality and resulted in the synthesis of over fifty natural products and over a dozen new molecular entities. He has published over 350 original research papers in international journals of highest repute and contributed several chapters to leading books and monographs. In addition, he has been on the editorial boards of many journals and books. He trained nearly 100 doctoral and post-doctoral students who occupy important positions in academia and industry in India and abroad.

He has delivered over 200 lectures worldwide some of which include Professor R.H Sahasrabudhey Lecture (1980); Professor K. Venkataraman Endowment Lecture (1983); Dr Sukh Dev Endowment Lecture (1986); Professor N. Venkatasubramanian Endowment Lecture (1986); Professor A.B. Kulkarni Endowment Lecture (1987); Platinum Jubilee Lecture at Indian Science Congress (1988); CSIR Distinguished Lectures (1989); Bawa Kartar Singh Memorial Lecture (1989); Morris Travers Memorial Lecture (1990); Professor S.M. Sethna Memorial Lecture (1990); Sir C.V. Raman Lecture (1992); Sir J.C. Ghosh Memorial Lecture (1993); Dow-Elanco Lecture, the Ohio State University, Columbus, U.S.A., (1996); Professor P.C. Dutta Memorial Lecture, IACS, Calcutta (2000); Hallim Distinguished Lecture, Korean Academy of Science and Technology, Seoul, Korea, (2000) Dr. G S Sidhu Memorial Lecture, Indian Institute of Chemical Technology, Hyderabad, (2002); Betz Dearborn-Professor CNR Rao Medal Lecture, Institute of Chemical Engineers, (2002).

Prof. Mehta is the recipient of many awards and honours, including Basudev Bannerji Medal and Prize, S S Bhatnagar Prize in Chemical Sciences, FICCI Prize for Excellence in Physical Sciences, Golden Jubilee Commemoration Medal of the Indian National Science Academy (INSA), Jawaharlal Nehru Birth Centenary Award of Indian National Science Academy, G.D. Birla Prize for excellence in Science and Goyal Prize in Chemical Sciences. The Madhya Pradesh Government has conferred the Jawaharlal Nehru National Award for excellence in Science and the Rajasthan Government has awarded Science and Technology Award to him. He has also received Medals from the Third World Academy of Sciences (TWAS), Indian Science Congress Association (ISCA), AP Academy of Sciences and the Chemical Research Society of India (CRSI) and Fellowships of Indian National Science Academy (President 1999-2001), Indian Academy of Sciences (formerly Vice-President), National Academy of Sciences and the Third World Academy of Sciences. He has been the first Indian recipient of the Humboldt Research Prize (Germany) and the Universities in Marseille and Paris have conferred doctorate *Honoris Causa* on him. Prof. Mehta has also been conferred the civilian honors of *Officier dans l'ordre Palmes Academiques* by the President of France and 'Padma Sri' by the President of India.

He had made many presentations and deliberations at various national and international meetings, universities and research institutions in India and overseas. These include some of the foremost in the area of Organic Chemistry like IUPAC Symposia on Natural Products, Organic Synthesis and Physical Chemistry; NATO-Advanced workshops; meetings and symposia of the National Chemical Societies like, the Royal Australian Chemical Institute Convention, the Brazilian Chemical Society, the Royal Society of Chemistry (UK) and the Chemical Society of Japan. He Chaired the 10th IUPAC Conference on Organic Synthesis, Bangalore, 1994 and was the Member, International Advisory Committees of leading International Conferences in Organic Chemistry.

He is associated with many national and international juries for conferring awards; is a Trustee of several foundations and involved with R & D Advisory bodies. He has been a member of the Scientific Advisory Committee of the Cabinet (SACC) of the Government of India for the past several years. Prof. Mehta has been actively participating in several international bodies for the promotion of science and is keenly committed to establishing bridges between science in developing and developed countries. He has been a member of the Executive Board of ICSU (International Council of Science) and its President Elect 2005-2008 and Co-chair of Inter-Academy Council (IAC) an international science advisory body representing nearly ninety science academies of the world.

In addition to the outstanding contributions to research and teaching, Prof. Mehta has actively contributed to science education, science policy and planning and R&D efforts in India and abroad in many ways. Prof. Mehta has nurtured many individuals, research institutions and universities in establishing themselves in the forefront of research. The Association of Indian Universities will also gain from his academic acumen, scholarship and vast experience.

The Association of Indian Universities welcomes him as its new President. ❑

News from Abroad

Smuts Visiting Fellowships 2004-2005

Smuts Memorial Fund, Cambridge is offering one or two Smuts Visiting Fellowships in Commonwealth Studies in association with a Visiting Fellowship at Wolfson College to be held during the academic year 2004/2005. Fellowships are available for research in the field of Commonwealth Studies, including the Commonwealth related aspects of archaeology, anthropology, economics, history, human geography, law, literature, oriental studies, sociology, politics and social psychology.

The maximum duration of a Fellowship is nine months, beginning in October 2004, but the Managers would be willing to consider applications requiring less time in Cambridge. Fellowship holders are expected to live in Cambridge for the bulk of their tenure. The accommodation is offered by Wolfson College. Fellows are expected to advance Commonwealth Studies in Cambridge mainly by pursuing research, but also by taking part in seminars and similar activities within the University. Fellows will have access, by agreement, to the holdings of Faculty and Departmental libraries, to the libraries of the Centres of African Studies and South Asian Studies and to the University Library, which houses the extensive collection of materials relating to the history of the British Empire and Commonwealth formerly housed in the Royal Commonwealth Society Library in London.

Fellows will receive a contribution towards their expenses of up to £25,000 for a nine month stay, including all travel and baggage expenses, depending upon their other resources.

The sum is not subject to tax in the UK. The additional sums for the travel or living expenses of anyone accompanying the Fellow to Cambridge will not be provided.

Applicants should be members of staff of another University or similar institution outside the UK. They should hold a Ph.D. or, if not, be working at a post-doctoral level. The Managers will give preference to scholars with a distinguished research profile who are nationals or permanent residents of the overseas countries of the Commonwealth and who have active research interests in an area or areas of scholarship falling within the remit of the Smuts Fund as specified above. The Managers expect that applicants would be intending to come to Cambridge to work on a project building on existing research for which a period of residence in Cambridge is demonstrably appropriate, although they would not rule out the initiation of a new piece of work where there is a realistic expectation that it could be completed by the end of the tenure of the Fellowship.

Applicants may write or send an email to the Secretary, Smuts Memorial Fund, 4 Mill Lane, Cambridge, CB2 1RZ, UK, kfw20@admin.cam.ac.uk for an application package. Telephone numbers for contact are (01223) 338396, Fax: (01223) 765515 (National) +44 1223 765515 (International). Applicants may note that for security reasons neither applications nor references will be accepted via email and therefore they should make arrangements accordingly. The closing date for completed applications and references to be received in Cambridge is 28 August 2003. ❑

COMMUNICATION

Role of the Principal

I read with great interest and good profit Dr. Madhusudhan's article, 'Academic Innovation and the Role of the Principal' (UN, 40(47), November 25-December 01, 2002) and I wish to congratulate him for a very lucid, informative comprehensive yet concise exposition of the College Principal's role. I thoroughly endorse his views that all teaching has to be innovative, full of variety, sensitive to the changing needs of the students, and guided by a spirit of renovation and update. I have discovered from personal experience that a reasonable use of technology can be very effective even in language and literature teaching--learning. I feel distressed to observe that an alarming majority of our teachers do not (know how to) use even such an elementary gadget as an OHP, leave aside sophisticated, expensive power point presentations. A measure of imagination and a genuine desire to perform effectively within the four walls of one's classroom will work wonders. As for the facilitative role of the Principal, I do not think that he/she awaits opportunities to throw buckets of cold water on committed and competent colleagues. I personally believe that the NAAC exercise is an immensely awareness-creating experience and the colleges that orient themselves for it will be recipients of rewards in the form of changed attitudes, practices, habits and milieu. In such circumstances, excellence alone can be the result. Dr. Madhusudanan's article, therefore, needs to be drawn particular and wider attention to. That, honestly, is the purpose of this letter.

S.V. Chindhade
Principal, M.U. College, Pimpri,
Pune-411017 ❑

THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities (September - October, 2002)

HUMANITIES

Fine Arts

Music

1. Sachdev, Aruna. **Relation of inter disciplinary subjects and their inter dependence in the field of Indian music.** (Dr Bharti Sharma), Department of Music, Maharshi Dayanand University, Rohtak.

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COLLEGE OF ARTS, KOWAD

Tal - Chandgad, Dist - Kolhapur,
(Affiliated to Shivaji University, Kolhapur)

WANTED

Applications are invited from eligible candidates for the following post to be filled in College Of Arts, Kowad

Principal ***1 (open Post)***

* Condition

1) For the post of Principal, Ph.D. or equivalent published work and minimum *experience of 10 years (for Principal of* Readers grade) or 15 years (for Principal of Professors grade) of teaching / Research in Universities / College and other Institutions of Higher Education is essential.

2) Educational Qualifications, Pay scale and service conditions will be as per Rules of Shivaji University, Kolhapur. The details regarding Educational Qualifications will be supplied to the candidates on request

3) Those who are already in service should apply through proper channel.

4) Incomplete application will not be entertained.

5) Apply giving full particulars **within a month** from the date of publication of this advertisement to the undersigned

Place : KOWAD
Date : 28-12-2002

SECRETARY
Sarvodaya Shikshan Sanstha,
Kowad

NIZAM'S INSTITUTE OF MEDICAL SCIENCES

(A University established under the State Act)
Punjagutta:
Hyderabad 500 082 A.P

RC.N0.8/1/2002/A-5

Date : 02-01-2003

NOTIFICATION

Applications are invited from the eligible candidates for the posts of Medical Superintendent and Executive Registrar in the Nizam's Institute of Medical Sciences, Punjagutta, Hyderabad:-

a) **Medical Superintendent**

Scale of Pay : Rs. 16,400-450-20900+ allowances as approved by NIMS

Qualifications: MD/MS/MHA

Experience: 10 YEARS teaching/ Research experience in a recognised institution in the subject of speciality after obtaining qualifying degree

Age: Below 50Yrs

b) Executive Registrar

Scale of Pay: Rs. 12,000-375-16500 + allowances as approved by NIMS

Qualifications & Experience: An academician in the field of Medical Sciences not lower in rank that of Asst. Professor of (3) years standing with the following Qualification. **MBBS with a Post Graduate Degree in any Medical speciality**

Age: Below 50 Years

Preference: Administrative experience of 3 years in any University Institution

The application on a plain paper neatly written/typed containing Name, address for communication, date of birth, age, qualifications, experience in teaching (category wise)/administrative experience (category-wise) as the case may, with other related information and supporting documents and a registration fee in the form of **Do for Rs 500/-** (Rupees Five hundred only) may be sent to the **Director, Nizam's Institute of Medical Sciences, Punjagutta, Hyderabad-500 082.** Last date for receipt of applications is **30-01-2003.**

Sd/-
DIRECTOR

BASELIOS POULOSE II CATHOLICOS COLLEGE

Baselious Mount, Mulakulam
North P.O., Piravom-686 664
E-mail:bpccollege@satyam.net.in
Website:www.bpccollege.com
Ph.: 0485-243424, 0485-243474

Applications are invited for the following posts.

Technical Assistant (Electronics) 1 No.

Qualification: B.Sc (Electronics) with one year experience or Three year diploma in electronics approved by Technical Education Department, Govt. of Kerala with one year laboratory experience in any govt./quasi-govt. institutions.

Technical Assistant (Computer) 1 No.

Qualification: P.G.D.C.A in computer application approved by Govt. of Kerala or B.Sc computer science with 1 year experience in computer programming or maintenance.

Or

Three year diploma in Computer Engineering approved by Technical Education Dept with one year experience in computer programming in any govt. quasi / govt institutions.

Applicants should have completed 18 years of age and should not exceed 35 years of age as on **1-01-02.**

Exemptions as per rule, will be given to candidates belonging to SC/ST, other backward classes and Ex-service personnel.

Application forms can be had directly from the college office on remittance of Rs 100/- or can be got through by mail by sending a **D.D for Rs. 110/- in favour of the college principal.** Filled up applications should reach the under signed **within 30 days** of the date of this advertisement

Sd/-

Principal,
B.P.C College,
Mulakulam (N) P.O.
Piravom 686 664

Baselios Mount
27-12-2002.

SARASWATI SHINDE EDUCATION SOCIETY'S

D. D. Shinde Sarkar College, Kolhapur

(Affiliated to Shivaji University, Kolhapur,
(Near Ambabai Temple, Kolhapur)
Phone No.: (0231) 522185,
Resi: 528792

WANTED

Applications are invited from eligible candidates for the following post in Senior College (English Medium):

1. **Principal 1 (open post)**

Note: (1) For the post of Principal, Ph.D. OR equivalent published work and a Minimum experience of 10 years (for Principal of Reader's grade) OR 15 years (for Principal of Professor's grade) of teaching/research in Universities/ colleges and other Institutions of Higher Education is essential (2) Candidates who are proficient in ENGLISH should only apply. (3) Educational qualifications, pay scales and service conditions will be as per rules of Shivaji University, Kolhapur. The details regarding educational qualifications will be supplied to the candidates alongwith application form (4) Those who are already in service should apply through proper channel (5) Incomplete application will not be entertained (6) Apply giving full particulars **within a month** from the date of publication of this advertisement to the undersigned

Place Kolhapur. **(Dr. Mrs. M. Mathew)**
Date: 1/1/2003. **I/c Principal**

(Shri N.N. Shinde) **(Dr. Abasaheb Shinde)**
Secretary **Founder-President**

ATTENTION ADVERTISERS

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APPLICATION FOR
EXECUTIVE DEVELOPMENT PROGRAMME FOR COLLEGE PRINCIPALS

Organised by

INDIAN INSTITUTE OF EDUCATION, PUNE
and
ASSOCIATION OF INDIAN COLLEGE PRINCIPALS

EXECUTIVE DEVELOPMENT PROGRAMME FOR COLLEGE PRINCIPALS

ORGANISED JOINTLY BY

ASSOCIATION OF INDIAN COLLEGE PRINCIPALS (AICP)

AND

INDIAN INSTITUTE OF EDUCATION, (IIE) PUNE

AT

The J. P. Naik Centre for Education and Development of
The Indian Institute of Education, Pune
First Programme : From 7th April 2003 to 16th April 2003
Second Programme : From 8th September to 17th September 2003

* THRUST AREAS OF THE PROGRAMME *

Internet in Education- concept of virtual class room - Use of computers in college administration, library, accounts, power point presentations- Assessment of colleges by NAAC-preparation of self study report - Exposure to *Seven Habits- Vision Building for an institution and Leadership-Emotional Intelligence*

Last dates for sending applications alongwith course fees for-
The First Programme: 1st March 2003
The Second Programme: 1st August 2003

Send applications alongwith course fee of Rs. 8000/-by DD drawn in favour of Association of Indian College Principals/ Indian Institute of Education payable at Pune before the dates mentioned above

To
The Director General
Indian Institute of Education
128 / 2, J. P. Naik Path, Kothrud, Pune 41 1 038
Telephones: 020-543 33 36, Fax : 020-543 52 39
Email : iiepune@giaspn01.vsnl.net.in
OR
Prin. V. R. Shirgurkar President, AICP
'Quiet Hour', Plot No. 17,
Saudagar Housing Society, Dhankawadi Pune 4 1 1 043
Telephone: 020 4363289, E mail: vrs4@indiatimes.com

Posted at NDPSO on Tuesday/Wednesday every week

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Admission to Post Graduate Diploma in Information Technology (PGDIT) Programme 2003-2004

SCHOOL OF INFORMATION TECHNOLOGY
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

PROGRAMME: Indian Institute of Technology Kharagpur offers **Postgraduate Diploma in Information Technology (PGDIT)** programme (full time) in three locations – Kharagpur, Kolkata and Bhubaneswar. Instruction is provided in a combination of distance and contact modes. This two-semester PG Diploma programme is designed to focus on the foundations of Information Technology, cutting-edge technologies and applications.

Programme Fees: Rs. 50,000/- per semester.

ELIGIBILITY FOR ADMISSION: Bachelor's degree in any branch of engineering or Master's degree in Physics, Chemistry, Mathematics, Statistics, Computer Applications (with Mathematics as a subject at Bachelor's level) with a minimum marks of 60% or equivalent CGPA. Final year students who shall be completing the above qualifying programmes by July 2003 can also apply.

MODE OF SELECTION: The selection is strictly based on the performance of the candidate in objective type of written test of 2-hour duration, covering mathematical aptitude, analytical reasoning and fundamentals of computer & programming. Candidates qualifying in the admission test will be called for counselling at IIT Kharagpur.

TEST CENTRES: IISc Bangalore, IIT Bombay, IIT Delhi, IIT Guwahati, IIT Kanpur, IIT Madras, IIT Roorkee, IIT Kharagpur and its two extension centres at Kolkata & Bhubaneswar.

APPLICATION PROCEDURE: Information Brochure-cum-Application Form can be obtained on payment of (non-refundable) application fee of Rs. 800/- (Rs. 400/- for SC/ST categories) in cash from the branches of **Canara Bank** at **Ahmedabad** (Revdi Bazar), **Bangalore** (12 J.C. Road), **Bhopal** (Berasia Road), **Bhubaneswar** (Plot No.691, Saheed Nagar), **Chandigarh** (SCO 117-119, Sector-17C), **Chennai** (154 Tambhu Chetty Street), **Coimbatore** (152, Oppankara Street), **Delhi** (H54, Bombay Life Building, Connaught Circus), **Guwahati** (14A, H.B. Road, Fancy Bazar), **Hydrabad** (4-1-954, Abid Road), **Kolkata** (14 & 15 A.P.C. Road, Sealdah), **Lucknow** (31/32, Halwasiya Court, M.G.Road, Hazratganj), **Mumbai** (65, Sonawala Building, B.S.Marg), **Nagpur** (Sadar Bazar, Residency Road), **Patna** (South Gandhi Maidan). Forms can also be obtained in person/by post by sending two self-addressed slips and a demand draft in favour of **"IIT Kharagpur"** payable at any Nationalised Bank at Kharagpur. The requests should be sent to "The Chairman, GATE, Indian Institute of Technology, Kharagpur 721 302".

IMPORTANT DATES

Commencement of sale of application forms		:	03.02.2003
Last Date for:			
(a)	Request by Post	:	28.02.2003
(b)	Sale at Bank Counters	:	03.03.2003
(c)	Sale at GATE Office (IIT Kharagpur)	:	10.03.2003
(d)	Receiving Completed Application Form	:	10.03.2003
DATE OF ADMISSION TEST		:	**13.04.2003**

Application Form duly filled-in should reach The Chairman, GATE, Indian Institute of Technology, Kharagpur 721 302 by 10.03.2003

Chairman, GATE & PG Admission Committee

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